

THREE-DIMENSIONAL DIGITAL-COMPUTER MODEL OF THE PRINCIPAL
GROUND-WATER RESERVOIR OF THE SEVIER DESERT, UTAH

By Walter F. Holmes

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CONVERSION FACTORS

For use of readers who prefer to use metric units, conversion factors for terms used in this report are listed below:

Multiply	By	To obtain
inch	25.40	millimeter
	2.540	centimeter
foot	0.3048	meter
mile	1.609	kilometer
acre	0.4047	square hectometer
	0.004047	square kilometer
square mile	2.590	square kilometer
acre-foot	0.001233	cubic hectometer
	1233	cubic meter
cubic foot per second	0.02832	cubic meter per second
cubic foot per day per foot	0.0929	cubic meter per day per meter

National Geodetic Vertical Datum of 1929 (NGVD of 1929): A geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called mean sea level.

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ABSTRACT

A three-dimensional finite-difference digital model was used to simulate the principal ground-water reservoir of the Sevier Desert. The model was calibrated against steady-state water levels, aquifer tests, and measured water-level changes from 1952 to 1982. The calibrated model can be used to project future water-level changes assuming various ground-water development options.

INTRODUCTION

A finite-difference model of ground-water flow in three dimensions was used to simulate the principal ground-water reservoir of the Sevier Desert. The construction of the model was part of a comprehensive study of ground water in the Sevier Desert (fig. 1) by the U.S. Geological Survey in cooperation with the Utah Department of Natural Resources, Division of Water Rights. Some of the data used to construct the model were obtained from previous publications, and some were collected during this study. The model can be used to simulate a variety of actual or hypothetical ground-water development options and to project the resulting water-level changes.

This report was prepared to describe the construction and calibration of the model, and to list its data input so that agencies and individuals can make use of the model. Results of simulation by the U.S. Geological Survey of various hypothetical ground-water withdrawal options in the Sevier Desert are described in a report on the ground-water hydrology of the Sevier Desert to be published as a Utah Department of Natural Resources Technical Publication.

Trescott (1975) documented the finite-difference model for simulation of ground-water flow in three dimensions used in this report. Modifications to the program were made by Trescott and Larson (1976) and Torak (1982). Only minor modifications in input and output formats were used in the Sevier Desert model. The reports referenced above give a complete program listing.

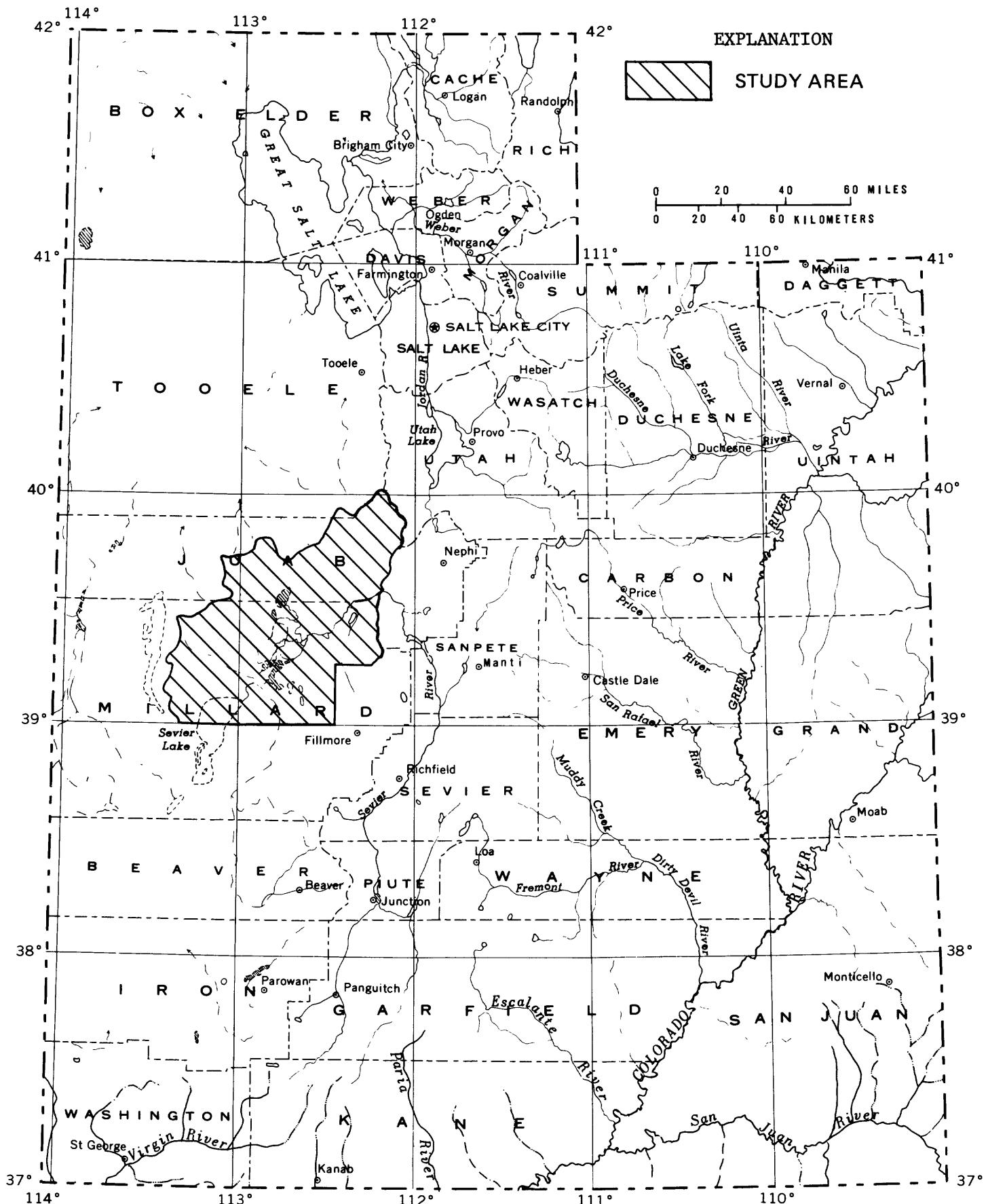


Figure 1.—Location of the study area.

WELL- AND SPRING-NUMBERING SYSTEM

The system of numbering wells and springs in Utah is based on the cadastral land-survey system of the U.S. Government. The number, in addition to designating the well or spring, describes its position in the land net. By the land-survey system, the State is divided into four quadrants by the Salt Lake base line and meridian, and these quadrants are designated by the uppercase letters A, B, C, and D, indicating the northeast, northwest, southwest, and southeast quadrants, respectively. Numbers designating the township and range (in that order) follow the quadrant letter, and all three are enclosed in parentheses. The number after the parentheses indicates the section, and is followed by three letters indicating the quarter section, the quarter-quarter section, and the quarter-quarter-quarter section--generally 10 acres¹; the letters a, b, c, and d indicate, respectively, the northeast, northwest, southwest, and southeast quarters of each subdivision. The number after the letters is the serial number of the well or spring within the 10-acre tract; the letter "S" preceding the serial number denotes a spring. If a well or spring cannot be located within a 10-acre tract, one or two location letters are used and the serial number is omitted. Thus (C-15-4)26dcc-1 designates the first well constructed or visited in the SW₄SW₄SE₄ sec. 26, T. 15 S., R. 4 W. The numbering system is illustrated in figure 2.

¹Although the basic land unit, the section, is theoretically 1 square mile, many sections are irregular. Such sections are subdivided into 10-acre tracts, generally beginning at the southeast corner, and the surplus or shortage is taken up in the tracts along the north and west sides of the section.

Sections within a township

Tracts within a section

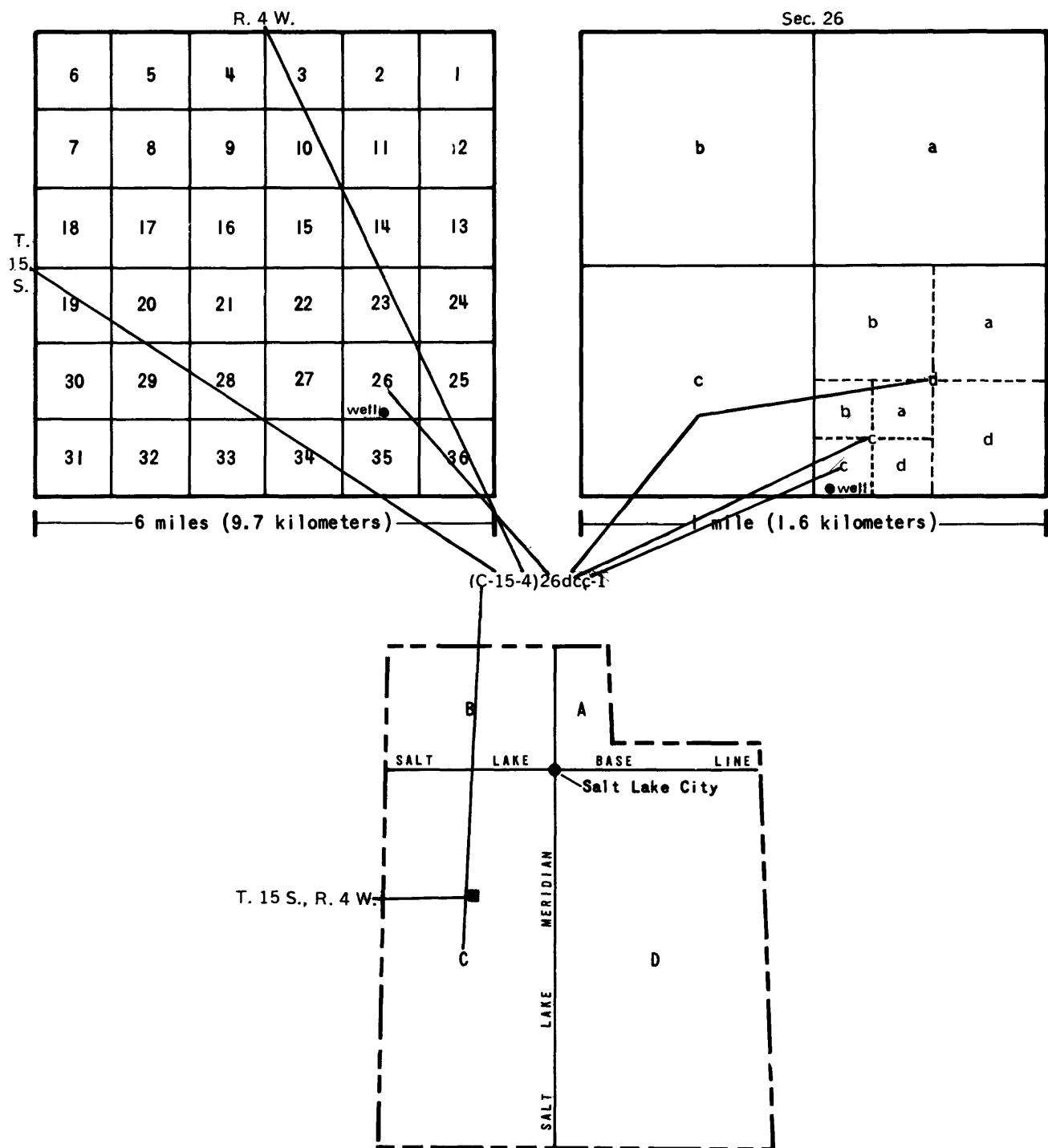


Figure 2.—Well- and spring-numbering system used in Utah.

MODEL DESIGN AND CONSTRUCTION

The design and construction of the model involved dividing the principal ground-water reservoir into model layers with similar hydraulic characteristics, determining the grid size, and assigning the initial and boundary conditions.

Division of the Principal Ground-Water

Reservoir Into Model Layers

The principal ground-water reservoir of the Sevier Desert consists of unconsolidated basin-fill deposits of clay, silt, sand, gravel, and consolidated volcanic rocks ranging in age from Pliocene to Holocene. These deposits are underlain by semiconsolidated to consolidated conglomerates of Pliocene(?) and older age (Mower and Feltis, 1968, table 2). The saturated unconsolidated basin-fill deposits and permeable parts of the volcanic rocks form a complex, interconnected, multiple-aquifer system that has been divided by Mower and Feltis (1968, p. 23) into a lower and upper artesian aquifer and a water-table aquifer. Mower (1963, p. 1) and Holmes and Wilberg (1982, p. 8) referred to the artesian aquifers as the deep (lower) artesian aquifer and the shallow (upper) artesian aquifer. Lithologic logs of wells illustrate the variability and lack of continuity in the beds making up the units of this multiple-aquifer system (Mower, 1963, fig. 1; and Holmes and Wilberg, 1982, fig. 3).

A generalized geologic section near Lynndyl, Utah (fig. 3), modified from a section given by Holmes and Wilberg (1982, fig. 3), shows the lithology and divisions of the principal ground-water reservoir into model layers. Near Lynndyl, layers 1 and 2 represent the deep artesian aquifer, layers 3 and 4 represent a confining bed, layer 5 represents the shallow artesian aquifer, and layer 6 represents the water-table aquifer, which in this area is mostly fine grained and acts as a confining bed for the shallow artesian aquifer. Near Sugarville, the shallow artesian aquifer is about 300 to 350 feet thick, compared with a thickness of about 100 feet near Lynndyl (Mower, 1963, fig. 1), and for modeling purposes is represented by both layers 4 and 5.

Model Grid

A block-centered grid with variable grid spacing is used to model the principal ground-water reservoir of the Sevier Desert (pl. 1). The grid consists of 35 rows and 39 columns. With 6 layers, the number of nodes is 35 x 39 x 6 or a total of 8,190, of which 5,682 are active nodes. The area of individual active nodes ranges from 1 to 25.6 square miles. The smaller nodes are used where many wells are located and large ground-water withdrawals and water-level changes occur. The larger nodes are located where only a few wells are present and withdrawals and water-level changes are minimal.

Northeast

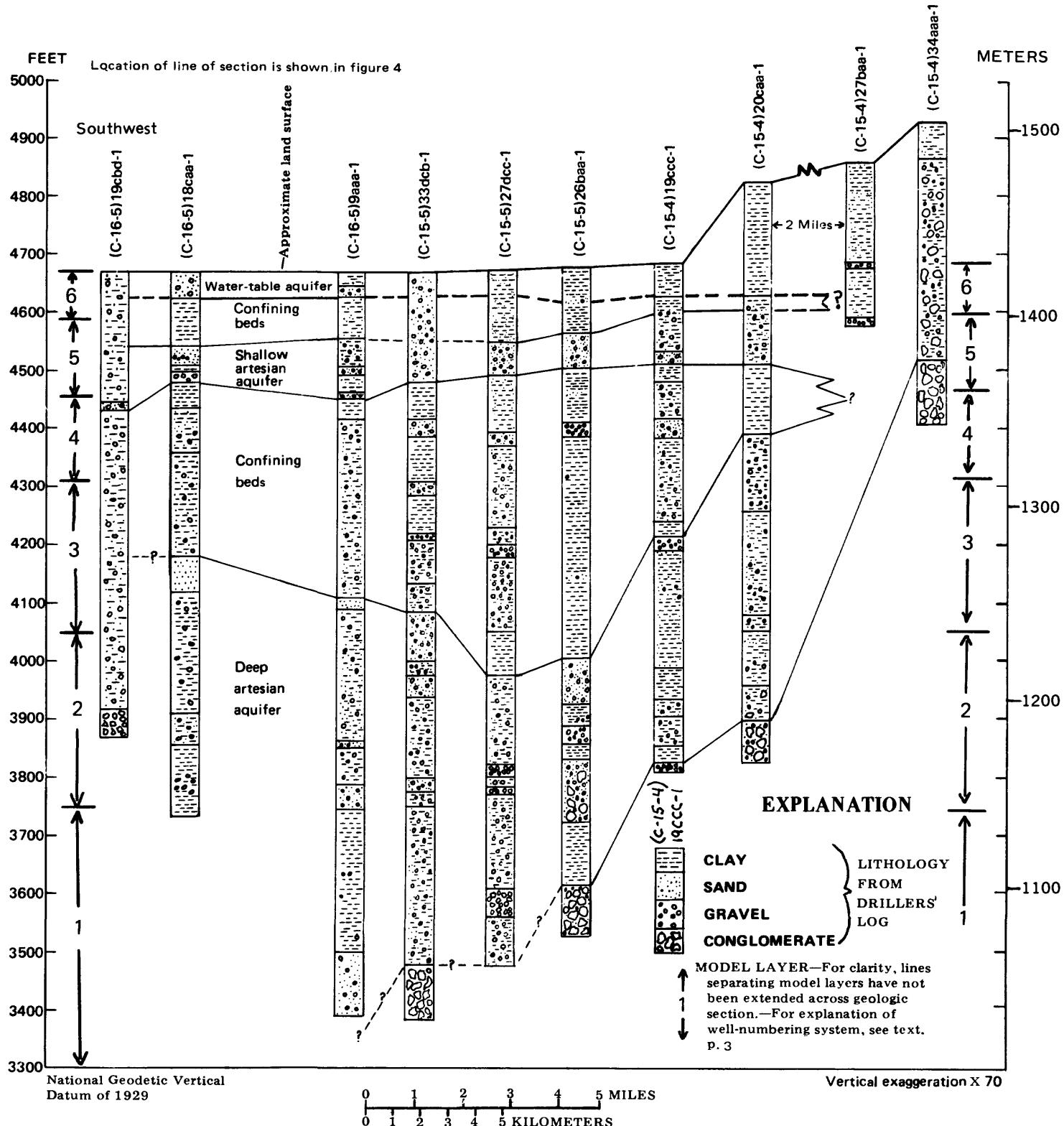


Figure 3.—Generalized geologic section near Lynndyl, Utah, showing lithology and divisions of the ground-water reservoir into aquifers, confining beds, and model layers (modified from Holmes and Wilberg, 1982, fig. 3).

Boundary Conditions

A no-flow (impermeable) boundary was placed around the entire border of the active part of the model in all layers (pl. 1). The no-flow boundary coincides approximately with the contact between the unconsolidated basin-fill deposits and volcanics of Quaternary age and the semiconsolidated to consolidated deposits of Tertiary age as mapped by Mower and Feltis (1968, pl. 2). A no-flow boundary also was placed at the base of layer 1, based on the assumption that there is no upward leakage from the underlying Tertiary deposits. Constant-head nodes were placed inside the no-flow boundary around the entire model in the uppermost layer (layer 6). After steady-state calibration, the flow rates calculated by the model along the boundary were simulated by constant-flux nodes for transient simulations.

DATA INPUT

Data input to the model include initial water levels, recharge, transmissivity, storage coefficient, confining-bed properties, and discharge.

Initial Water Levels

Ground-water withdrawals in the Sevier Desert were small and did not significantly affect water levels in wells until after 1952 (Mower and Feltis, 1964, fig. 2). Initial water levels representing conditions in 1952 used in the model for steady-state simulation and as initial levels for the 1952-81 transient-state simulation were obtained from basic-data reports by Mower and Feltis (1964) and Enright and Holmes (1982). In areas remote from the center of development, where water levels have not changed appreciably since 1952, more recent water levels could be used.

Recharge

Recharge represented by the model includes stream infiltration along mountain fronts; subsurface inflow from consolidated rocks of mountain areas; subsurface inflow from adjoining areas; precipitation on basalt outcrops; and seepage from canals, reservoirs, and unconsumed irrigation water.

Stream infiltration, subsurface inflow from consolidated rocks of mountain areas, and subsurface inflow from adjoining areas.--Constant-head nodes were used along the model boundaries (pl. 1) in the uppermost layer (6) to represent recharge from mountain-front stream infiltration (not including the Sevier River, which is simulated specifically by constant-head nodes within the model), subsurface inflow from consolidated rocks of mountain areas, and subsurface inflow from adjoining areas. After steady-state calibration, the flow rates at each constant-head node along the model boundary were simulated as constant-flux nodes. This approach is necessary to allow changes in water levels along the model boundaries and to avoid causing large changes in inflow during transient simulations.

Simulating subsurface inflow from consolidated rocks in the mountain areas and from adjoining areas only into layer 6 was done to simplify the model. It is possible that water enters in other layers as well.

Precipitation on basalt outcrops.--Recharge from precipitation on basalt outcrops in the Clear Lake Springs area, in the southeastern part of the Sevier Desert, was assumed to be 1 inch per year (Mower, 1967, p. E27). Volcanic rocks of Tertiary and Quaternary age (lava flows and volcanic cones of basalt, tuff, and scoria) were mapped by Mower and Feltis (1968, pl. 2). A rate of 1 inch per year of recharge was applied to the nodes in the model that coincide with these outcrops (pl. 1).

Seepage from canals, reservoirs, and unconsumed irrigation water.--Recharge from canals, reservoirs, and unconsumed irrigation water was estimated from previous studies and reports by Herbert and others (1982); Palmer B. Delong (U.S. Bureau of Reclamation, written commun., December 8, 1970, and February 24, 1971); U.S. Department of Agriculture (1969, p. 63); Mower and Feltis (1968, p. 25-28); and Mower (1965, p. 50). Estimated recharge rates calculated for individual nodes varied from less than 1 inch per year in the center of the basin to more than 1 foot per year near Oak City (pl. 1).

Recharge from irrigation is not simulated in the center of the basin because any unconsumed irrigation water in this area is probably discharged to drains. (See discussion of this aspect of the model in the section "Limitations of Model.")

Horizontal and Vertical Permeabilities

of Aquifers and Confining Beds

The horizontal permeability of the shallow artesian aquifer used in the model ranges from 1,300 to 40,100 feet squared per day and was estimated using transmissivity data in reports by Mower (1961, 1963) and Mower and Feltis (1968, table 8 and fig. 12). Horizontal permeability of the deep artesian aquifer used in the model ranges from 1,300 to 12,200 feet squared per day and was estimated using transmissivity data from Mower and Feltis (1968, table 8 and fig. 12) and Holmes and Wilberg (1982). Values of transmissivity from aquifer tests range from about 2,000 to 27,000 feet squared per day for the deep artesian aquifer (layers 1 and 2) and from about 3,600 to 47,000 feet squared per day for the shallow artesian aquifer (layer 5). The areal variation in values of transmissivity over much of the modeled area was patterned after the variation inferred by Mower and Feltis (1968, fig. 12).

The horizontal hydraulic conductivity (transmissivity divided by the saturated thickness) of the water-table aquifer (layer 6) was estimated from drillers' logs and trial-and-error adjustments during model calibration to be about 10 feet per day, with the exception of the basalt, for which the horizontal hydraulic conductivity was estimated to be about 1,000 feet per day. The horizontal hydraulic conductivity of the basalt used in the model is much lower than reported by Mower (1965, table 8). Attempts to use larger values of horizontal hydraulic conductivity for the basalt during steady-state calibration gave unrealistically large values of flow through basalt in comparison with discharge at Clear Lake Springs. The transmissivity of the confining beds (layers 3 and 4) between the deep and shallow artesian aquifers was estimated, using descriptions of materials in drillers' logs, to be about 2,100 feet squared per day.

The vertical hydraulic conductivity of both the deep and shallow artesian aquifers was assumed to be 1 percent of the horizontal hydraulic conductivity. The vertical hydraulic conductivity of the confining beds between the deep and shallow artesian aquifers near Lynndyl was reported by Holmes and Wilberg (1982, p. 11) to be 6×10^{-3} foot per day, which is about 0.1 percent of the horizontal hydraulic conductivity estimated from logs. The vertical hydraulic conductivity of the water-table aquifer was estimated by trial-and-error methods during steady-state calibration of the model to be 0.01 percent of the horizontal hydraulic conductivity. After adjustments were made to vertical hydraulic conductivity during steady-state calibration, values of TK (TK equals K_{zz}/b where K_{zz} represents the vertical hydraulic conductivity between the centers of adjoining layers and b represents the vertical distance between the centers of adjoining layers) were computed by the model and retained in storage for use during simulations.

Storage Coefficient of Aquifers and Confining Beds

The value of storage coefficient used in the model for the deep artesian aquifer (layers 1 and 2) was 6.4×10^{-5} and was obtained from Holmes and Wilberg (1982, p. 10). The storage coefficient of the shallow artesian aquifer (layer 5) has been reported to range from 3.8×10^{-4} to 2.2×10^{-2} (Mower and Feltis, 1968, table 8; Nelson and Thomas, 1953, p. 83). An intermediate value of 1×10^{-3} was used in the model. Values of the storage coefficient in the water-table aquifer (layer 6) have not been determined. For modeling purposes, the storage coefficient of the water-table aquifer was estimated to be 1×10^{-1} .

The storage coefficient of the confining bed (layers 3 and 4) between the deep and shallow artesian aquifers was calculated to be about 2.3×10^{-3} based on a specific storage (storage coefficient per foot of bed thickness) of 5.4×10^{-6} reported by Holmes and Wilberg (1982, p. 11).

Discharge

Seepage to the Sevier River, Clear Lake Springs, and subsurface outflow to adjoining areas.--Constant-head nodes were used in layer 6 to represent seepage to the Sevier River, discharge from Clear Lake Springs, and outflow at the model boundary to adjoining areas west of the Sevier Desert (pl. 1). After steady-state calibration, the flow rate at each discharging constant-head node along the model boundary was simulated by discharging wells (constant-flux nodes). Simulating outflow to adjoining areas only in the uppermost layer (6) was done to simplify the model. It is possible that outflow also occurs from other layers.

Evapotranspiration.--Discharge by evapotranspiration was simulated in the Sevier Desert model using a head-dependent source-sink option developed for the model by Torak (1982). The option assumes a linear change between a maximum evapotranspiration rate when the water level in the water-table layer is at the land surface and zero evapotranspiration when the water level is at a specified depth. The maximum evapotranspiration rate was initially set at 2.5 feet per year and the water level at which evapotranspiration was assumed to be zero was set at 30 feet. The rate of 2.5 feet per year corresponds to the rate estimated by Mower and Feltis (1968, table 7) for greasewood, the most common phreatophyte in the area. The nodes where evapotranspiration was simulated in the model are shown on plate 1.

Wells.--Discharge by wells prior to 1952, primarily from small diameter domestic and stock wells, was less than 2,000 acre-feet per year, and for steady-state modeling was assumed to be insignificant. Annual ground-water discharge during 1952-81 from both flowing and pumped wells ranged from about 3,000 to 50,000 acre-feet (Holmes and others, 1982, fig. 22), and averaged 21,000 acre-feet. Amounts of discharge from all wells within a given model node during a given time period were combined and simulated as a constant rate over the time period at that node.

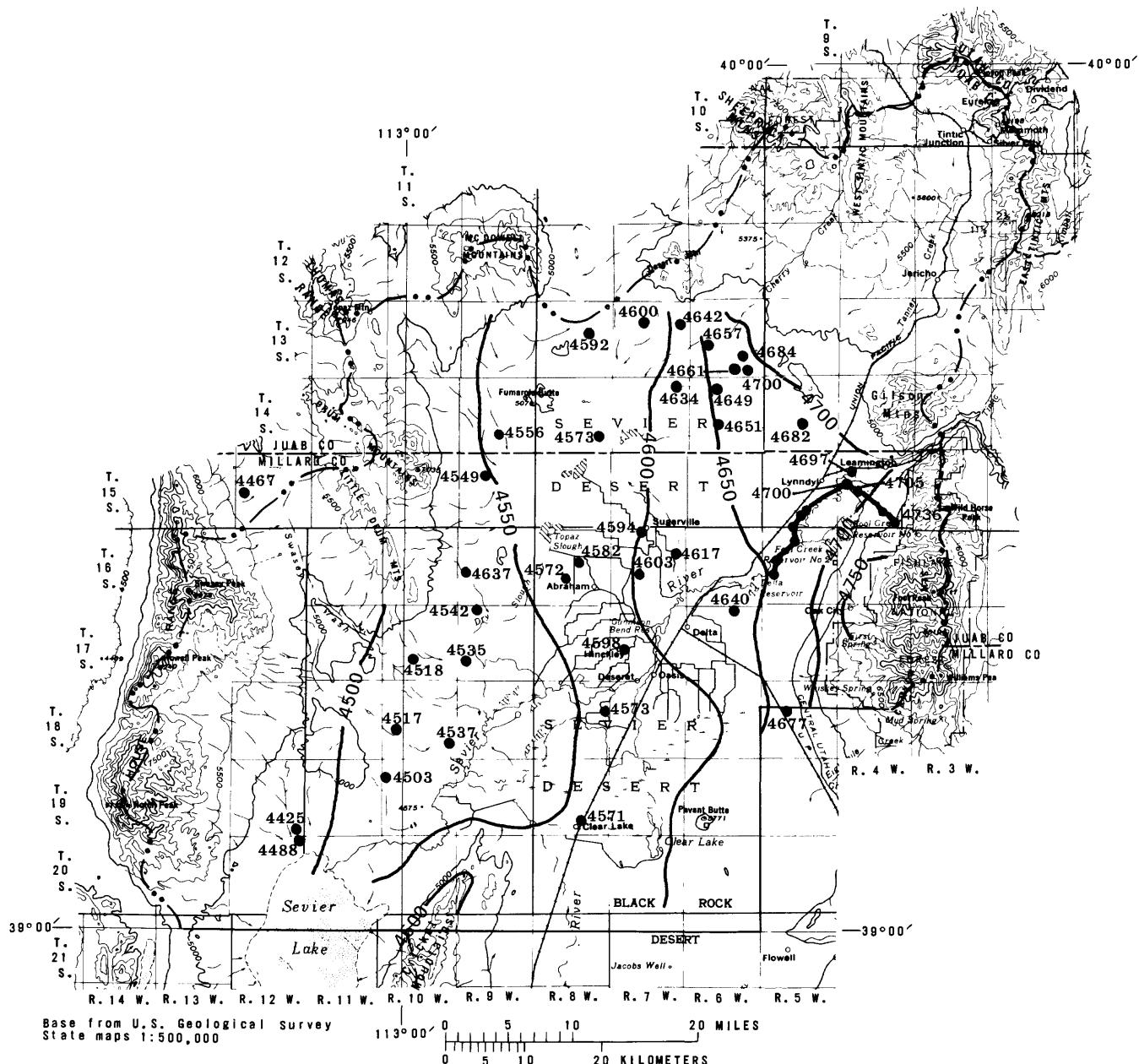
MODEL CALIBRATION

The calibration of the model involved both steady-state and transient-state simulations.

Steady-State Calibration

Steady-state calibration involved comparing computed water levels in the shallow artesian aquifer to water-level measurements in selected wells during the late winter and early spring of 1952 and adjusting some model parameters to improve the match. Ground-water withdrawals prior to 1952 in the modeled area were less than 2,000 acre-feet per year (Mower and Feltis, 1968, fig. 11). Water levels in observation wells prior to 1952 remained fairly constant (Mower and Feltis, 1968, fig. 4), and for the purposes of this model, it is assumed that steady-state conditions existed prior to 1952. In some areas remote from groups of pumping wells, water levels have been relatively unaffected by ground-water withdrawals for example, observation wells (C-13-4)23bcd-1 and (C-13-7)9cbc-1, for which water levels were tabulated by Enright and Holmes (1982, table 4). In these areas, more recent water levels could be used in the steady-state calibration.

Initial estimates of some model parameters at some nodes were adjusted, using a trial-and-error method, to obtain the best possible match between computed and measured water levels in the shallow artesian aquifer during the steady-state calibration. The parameters that were varied during steady-state calibration included initial water levels in the water-table aquifer, hydraulic conductivity of the water-table aquifer, and the rate of discharge by evapotranspiration. The computed steady-state potentiometric surface of the shallow artesian aquifer and water levels in the observation wells used in the calibration are shown in figure 4. The potentiometric-surface map generally is in close agreement with the observed water levels, although in local areas, there are differences of as much as 20 feet.



EXPLANATION

— 4550 — WATER-LEVEL CONTOUR.—Shows approximate altitude, in feet, of the potentiometric surface, of the shallow artesian aquifer, computed by the digital model for steady-state conditions. Contour interval is 50 feet. National Geodetic Vertical Datum of 1929.

4517 OBSERVATION WELL OR WELL USED TO
CONSTRUCT GEOLOGIC SECTION (FIG. 3).—
Number by well represents observed water level for
comparison with computed potentiometric surface.
Bold line shows location of geologic section in figure
3.

— 8 — DBRAINAGE DIVIDE

— BOUNDARY OF STUDY AREA

Figure 4.—Comparison between the computed steady-state potentiometric surface of the shallow artesian aquifer and measured water levels in wells.

The steady-state model was used to estimate recharge to and discharge from the ground-water system. The positive and negative nodal flow rates along recharging boundaries were summed to yield a net positive flow rate. This net positive flow rate represents recharge from stream infiltration, subsurface inflow from consolidated rocks in mountain areas, and inflow from adjoining areas. Some of the flow rates at constant-head nodes on the eastern side of the basin also include recharge from precipitation on basalt outcrops, seepage from canals and reservoirs, and unconsumed irrigation water. Since these rates already have been estimated by other means, they can be subtracted from the nodal flow rates to obtain the estimated recharge from stream infiltration, consolidated rocks, and adjoining areas.

The nodal flow rates calculated by the model along the discharging boundary of the model, and also rates at nodes in the interior of the model along the Sevier River and at Clear Lake Springs, can be used to compute net discharge from the ground-water system to adjoining basins, to the Sevier River, and by Clear Lake Springs. Discharge by evapotranspiration also was calculated by the model. Steady-state (1952) and transient-state (1980-81) ground-water budgets for the model are summarized in table 1.

Transient-State Calibration

Transient-state calibration consisted of two separate calibration procedures: Calibration using aquifer tests and calibration using 1952-81 withdrawal data and 1952-82 water-level data.

Calibration using aquifer tests.--Calibration using aquifer tests involved comparing the results of aquifer tests in the deep artesian aquifer near Sugarville (Mower, 1963) and near Lynndyl (Holmes and Wilberg, 1982) with the results of model simulations of the two tests. The model simulated the aquifer-test results without any changes being made in values of parameters determined during steady-state calibration, or in the values of storage coefficient and specific yield assumed for the artesian aquifers and the water-table aquifer. The computed and measured distance-drawdown curves for both tests are shown in figures 5 and 6. Considering the complexity of the aquifer system and the simplifications involved in the construction of the model (including the fact that water levels are not computed for point locations but represent the whole area of a node, or are not computed for perforated intervals in observation wells but represent the entire thickness of a layer), the results indicate that the model is capable of approximately reproducing the results of actual aquifer tests.

Table 1.--Steady-state (1952) and transient-state (1980-81) ground-water budgets for the Sevier Desert, computed by the digital model, in acre-feet per year

Budget element	Steady state (1952)	Transient state (end of 1980-81 pumping period)
Recharge		
Stream infiltration along mountain fronts and subsurface inflow from consolidated rocks of the mountain areas		
Canyon Mountains	9,300	9,300
Sheeprock and Gilson Mountains	17,300	17,300
Subsurface inflow from adjoining areas		
Pavant Valley	26,800	26,800
Beaver River Valley (including some from Milford area)	3,400	3,400
Sevier Lake area (including Cricket Mountains)	3,700	3,700
Precipitation on basalt outcrops	7,000	7,000
Seepage from canals, reservoirs, and unconsumed irrigation water		
Central Utah Canal	11,900	11,900
Canals west of Sugarville	700	700
Fool Creek Reservoirs	2,800	2,800
Unconsumed irrigation water on eastern boundary	8,600	8,600
Total (rounded)	92,000	92,000
Discharge		
Seepage to Sevier River	18,500	3,600
Clear Lake Springs	19,500	19,300
Evapotranspiration	45,000	42,300
Subsurface outflow to adjoining areas on western boundary	8,800	8,800
Wells	0	13,600
Total (rounded)	92,000	88,000

[The difference between recharge and discharge for the transient-state ground-water budget is because part of the recharge (about 4,000 acre-feet per year) is going into ground-water storage because the amount of water pumped from wells decreased between 1977-79 and 1980-81, resulting in rises in water levels.]

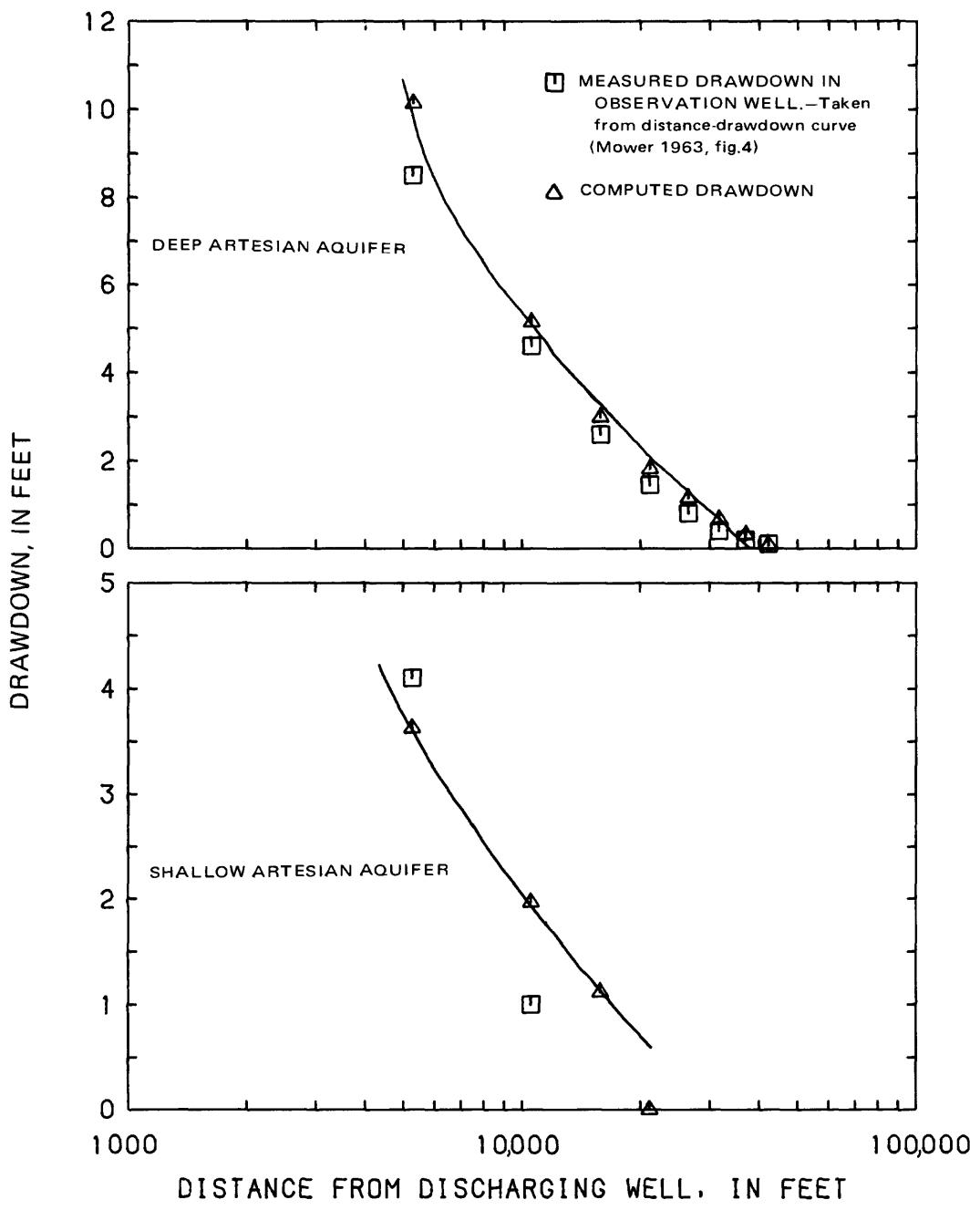


Figure 5.—Measured and computed water-level drawdown after 25 days during an aquifer test near Sugarville, Utah.

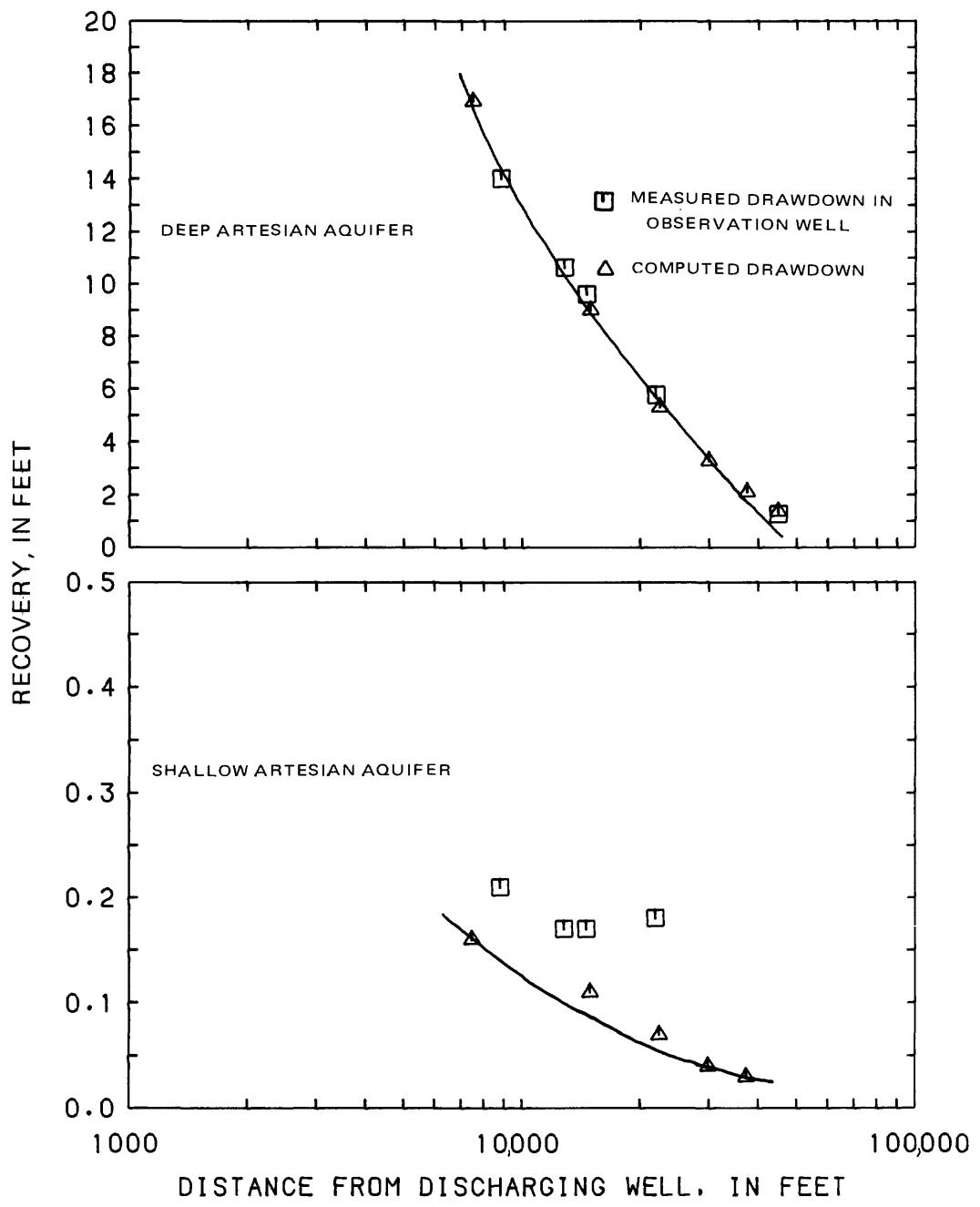


Figure 6.—Measured and computed water-level recovery after 26 days during an aquifer test near Lynndyl, Utah.

Calibration using 1952-81 withdrawal data and 1952-82 water-level data.--
 Calibration also was done by simulating ground-water withdrawals during 1952-81 and comparing computed water-level changes to measured water-level changes from winter or spring of 1951 and 1952 to the spring of 1982. The 30-year period was broken into seven pumping periods that represent intervals in which ground-water withdrawals remained fairly constant. The pumping periods selected were 1952-58, 1959-62, 1963-68, 1969-71, 1972-76, 1977-79, and 1980-81. The ground-water withdrawals used in each pumping period in the transient-state calibration are shown in table 2, and all the sets of data used in the model for the 1952-81 calibration are listed in table 3. At the end of each pumping period, computed water-level changes during that period were compared with measured water-level changes in 10 observation wells, some of which were completed in each of the two artesian aquifers.

During the calibration, it was apparent that some adjustment should be made to the vertical flow between the water-table aquifer and the shallow artesian aquifer. Values of TK (see p. 9) were increased along the margins of the basin to allow more water to move from the water-table aquifer to the artesian aquifers. The resulting vertical hydraulic conductivities ranged from 0.004 foot per day in the center of the basin to 0.41 foot per day along the margin of the basin. After a trial-and-error adjustment in values of TK, the computed water-level changes were in close agreement with the measured water-level changes. The measured and computed water-level changes for 10 selected observation wells are shown in figure 7. Following these adjustments, the model was run to resimulate steady-state conditions. The computed steady-state potentiometric surface for the shallow artesian aquifer was still a good match to the actual surface, and water levels at boundary nodes changed little, therefore recharge and discharge rates determined during initial steady-state calibration were still valid. The simulations of the aquifer tests were rerun using modified values of TK and computed water levels were still close to measured levels.

Table 2.--Pumping periods and ground-water withdrawals used in the 1952-81 transient-state calibration

Pumping period	Ground-water withdrawals (acre-feet per year)
1952-58	5,600
1959-62	16,500
1963-68	27,100
1969-71	15,300
1972-76	28,100
1977-79	43,400
1980-81	13,600

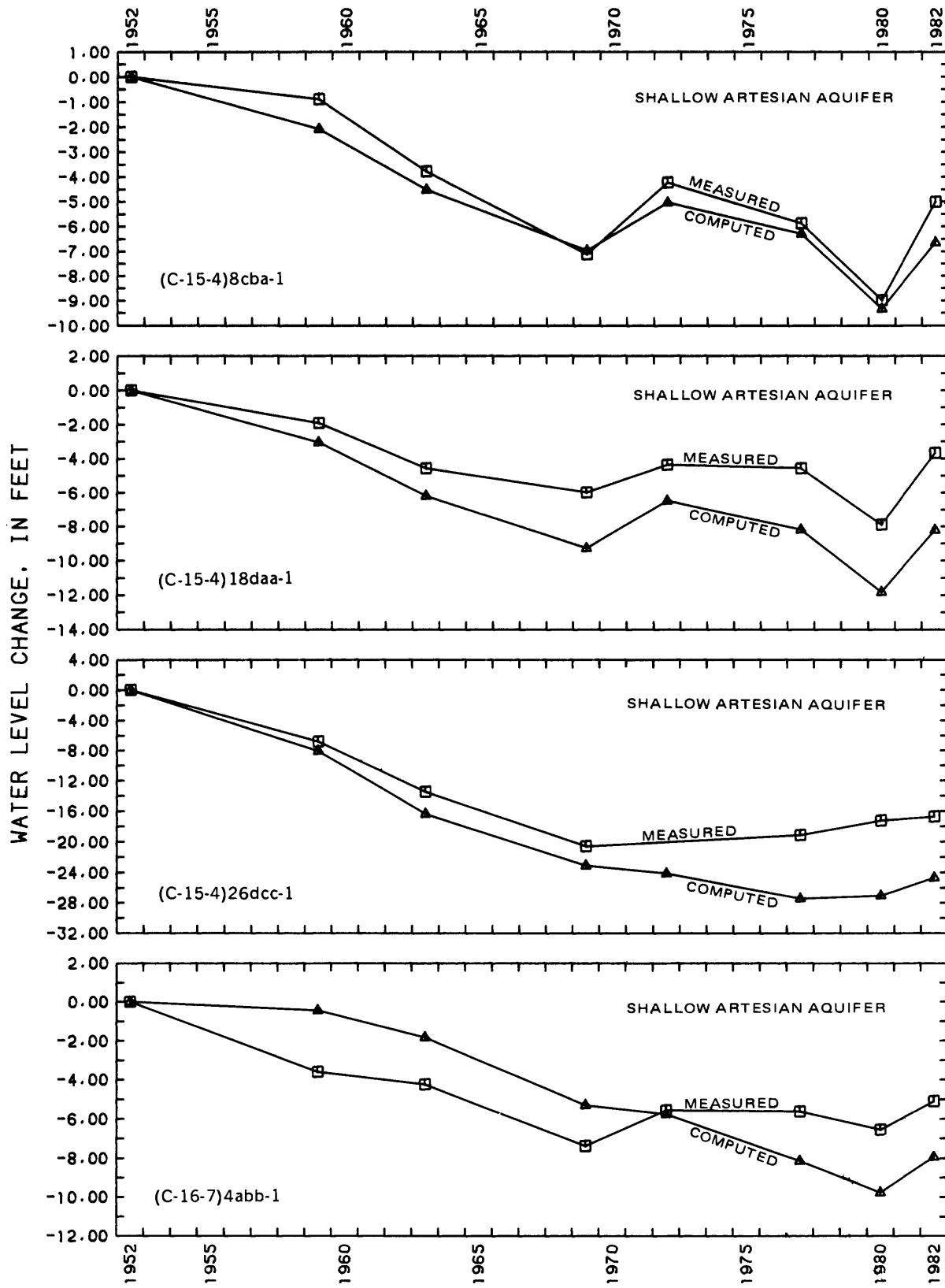


Figure 7.—Measured and computed water-level changes during 1952-82 for 10 selected observation wells.

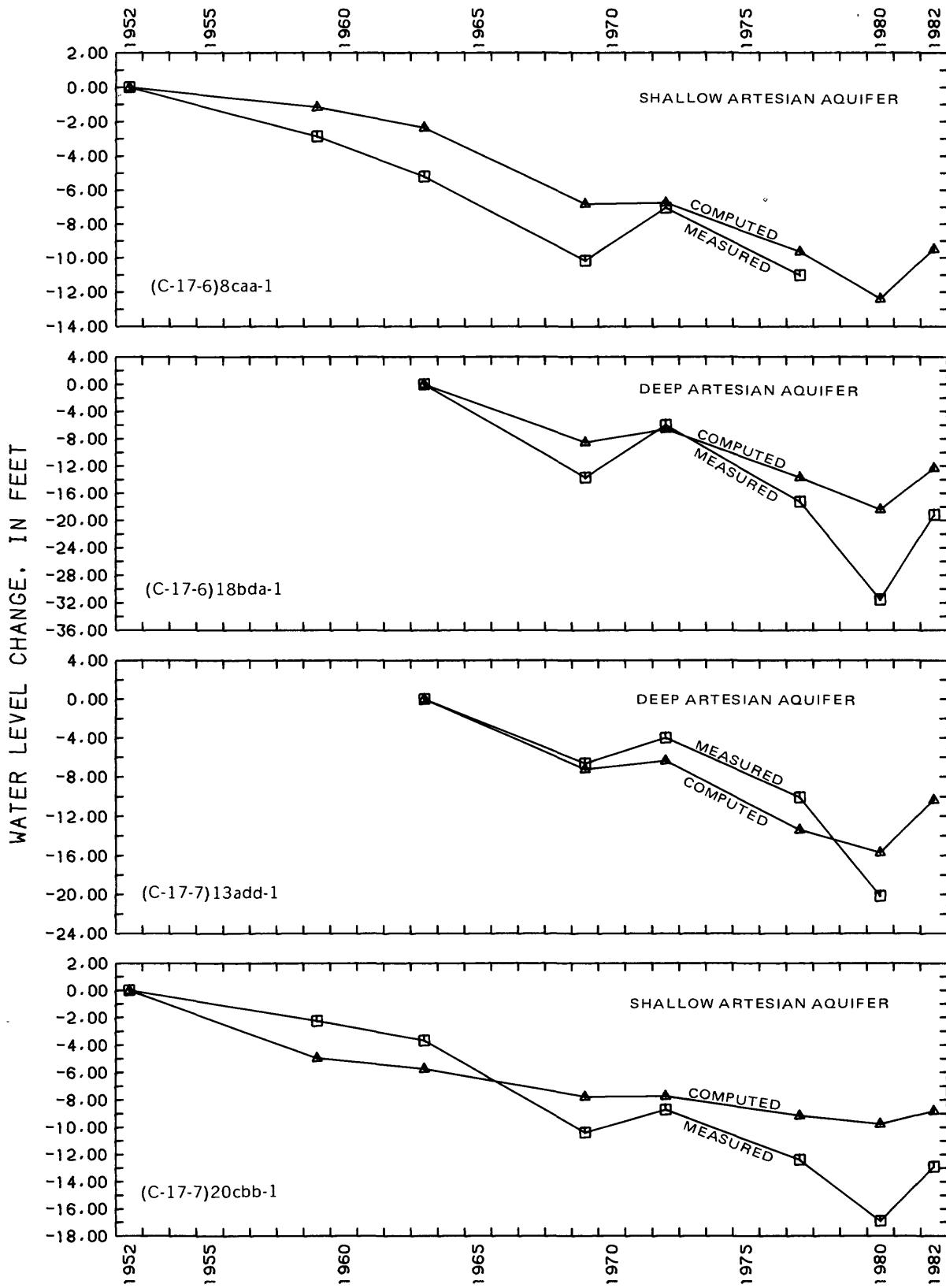


Figure 7.—Measured and computed water-level changes during 1952-82 for 10 selected observation wells--continued.

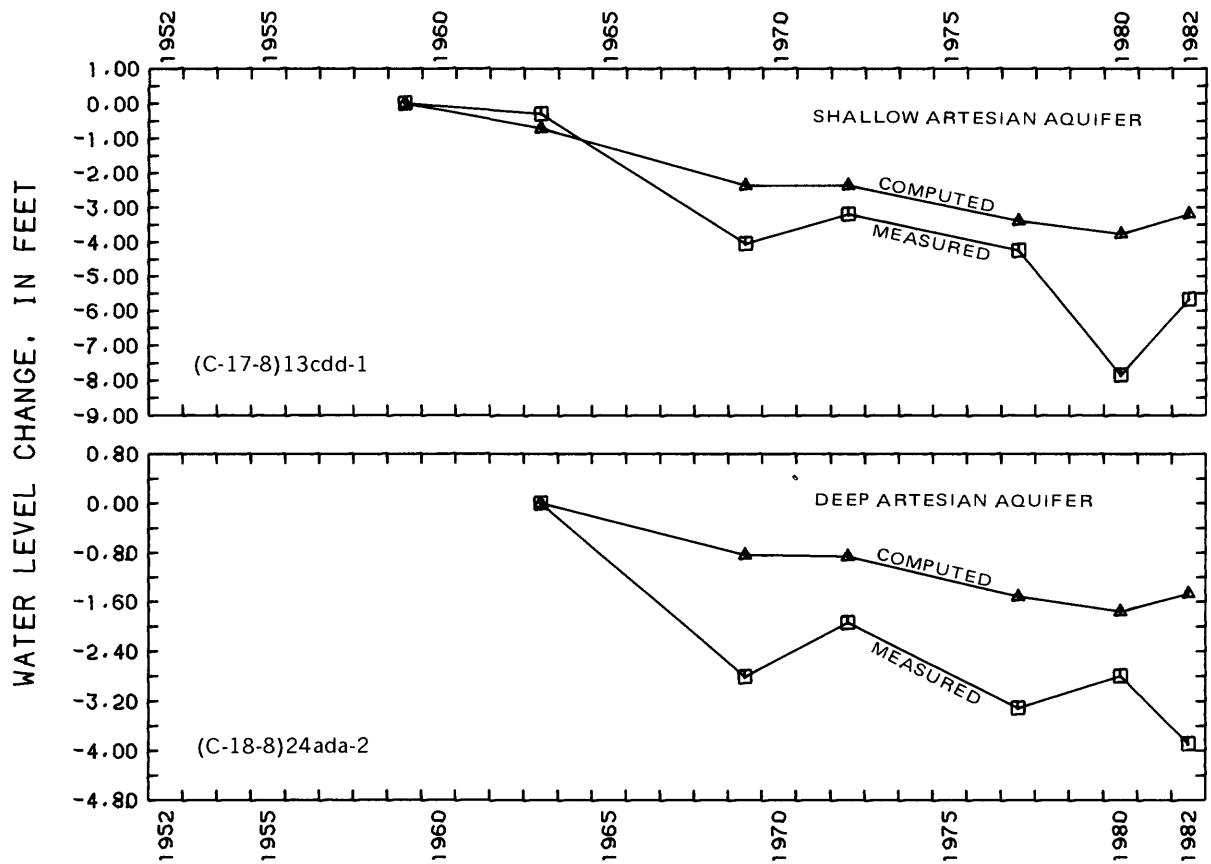


Figure 7.—Measured and computed water-level changes during 1952-82 for 10 selected observation wells--continued.

The model computed that during 1952-82 a total of about 290,000 acre-feet of ground water was removed from storage in the modeled area. In addition, between 1952 and the end of 1981, net ground-water discharge to the Sevier River decreased from about 18,500 to about 3,600 acre-feet per year, evapotranspiration decreased from about 45,000 to about 42,300 acre-feet per year, and discharge at Clear Lake Springs decreased from about 19,500 to about 19,300 acre-feet per year (table 1). As far as is known, these changes are hydrologically reasonable for the 1952-82 period.

The transient-state calibration process indicated that changes in vertical hydraulic conductivity and evapotranspiration rates had the largest effect on computed water-level changes. Changes in storage coefficients and transmissivities had very little effect on computed water-level changes. No attempt was made to vary recharge or discharge along the borders of the model. The simplified boundary conditions used in the model should have very little effect on the results of most hypothetical ground-water withdrawal simulations because hydraulic head changes near the boundaries were minimal during the various transient-state calibration simulations.

LIMITATIONS OF MODEL

The ground-water model documented in this report has some limitations and simplifications. All recharge to and natural discharge from the modeled area occurs in the water-table aquifer, although in reality some water may discharge from the artesian aquifers along the western border of the model, and possibly some subsurface inflow from adjoining areas and from consolidated rocks may flow into the artesian aquifers directly. However, water levels along the northern, western, and southern borders of the model were not significantly affected by withdrawals during transient-state calibration, and therefore this simplification should not affect the results of other simulations. Water levels along the eastern border of the model were affected by ground-water withdrawals during transient-state calibration but measured water-level changes were in close agreement with those computed by the model. The overall ground-water budget and rates of vertical movement of water along the western border likely would change if discharge from artesian aquifers were simulated in the model along its western boundary.

Recharge from all sources and subsurface inflow/outflow are constant for all simulations regardless of the actual historical and potential future variability of precipitation, streamflow, canal flow, irrigation, reservoir stage, or changes in hydraulic gradients between the modeled area and adjoining basins. Recharge and inflow/outflow would have to be modified to accurately predict effects of future ground-water withdrawals if irrigation practices change; streamflow diversion patterns are altered; canal or reservoir use changes; or present hydraulic gradients between the modeled area and adjoining areas, primarily Pavant Valley, change.

Ground-water seepage to the Sevier River and discharge by Clear Lake Springs is simulated by constant-head nodes. Simulating future ground-water development will cause water-level declines that could change these nodes to areas of recharge instead of discharge. This condition might be hydrologically reasonable for the Sevier River (within limits) but would not be for the springs. Model users should monitor changes at these nodes during simulations to insure they still represent realistic hydrologic conditions.

The complex system of drains in the irrigated areas around Delta was not included in the model because of the lack of data on the water-table aquifer and because of the difficulty of simulating the network of closely-spaced drains using the model grid with a minimum node size of 1 square mile. Any unconsumed irrigation water in this area is presently discharged to drains. An estimated 10,000 acre-feet of drain discharge per year could be intercepted and induced to move into the ground-water system if water levels in the water-table aquifer were to drop by about 10 feet. Thus, any simulation resulting in water-level declines of that magnitude in the water-table aquifer may predict declines that are slightly higher than would actually occur.

Despite these limitations, the model can yield satisfactory results when predicting the effects of future ground-water withdrawals of as much as about twice the 1977-79 annual average (43,400 acre-feet or 53.5 cubic hectometers) and a simulation period of about 20 years.

SUMMARY

A three-dimensional finite-difference digital model was used to simulate the principal ground-water reservoir of the Sevier Desert. The model was calibrated against steady-state water levels in the shallow artesian aquifer in 1952, aquifer tests, and measured water-level changes from 1952 to 1982. The model satisfactorily reproduces these historical conditions and tests, and can be used to project future changes in water levels under various ground-water development options.

REFERENCES CITED

- Enright, Michael, and Holmes, W. F., 1982, Selected ground-water data, Sevier Desert, Utah, 1935-82: U.S. Geological Survey Open-File Report 82-910 (duplicated as Utah Hydrologic-Data Report 37), 59 p.
- Herbert, L. R., Cruff, R. W., and Holmes, W. F., 1982, Seepage study of the Sevier River and the Central Utah, McIntyre, and Leamington Canals, Juab and Millard Counties, Utah: Utah Department of Natural Resources Technical Publication 74, 43 p.
- Holmes, W. F., and others, 1982, Ground-water conditions in Utah, spring of 1982: Utah Division of Water Resources Cooperative Investigations Report 22, 85 p.
- Holmes, W. F., and Wilberg, D. E., 1982, Results of an aquifer test near Lynndyl, Utah: U.S. Geological Survey Open-File Report 82-514, 17 p.
- Mower, R. W., 1961, Relation of the deep and shallow artesian aquifers near Lynndyl, Utah, in Geological Survey Research 1961: U.S. Geological Survey Professional Paper 424-C, p. C94-C97.
- 1963, Effects on the shallow artesian aquifer of withdrawing water from the deep artesian aquifer near Sugarville, Millard County, Utah: Utah State Engineer Information Bulletin 10, 9 p.
- 1965, Ground-water resources of Pavant Valley, Utah: U.S. Geological Survey Water-Supply Paper 1794, 78 p.
- 1967, Causes of fluctuations in the rate of discharge of Clear Lake Springs, Millard County, Utah: U.S. Geological Survey Water-Supply Paper 1839-E, 31 p.
- Mower, R. W., and Feltis, R. D., 1964, Ground-water data, Sevier Desert, Utah: U.S. Geological Survey open-file report (duplicated as Utah Basic-Data Report 9, 34 p.).
- 1968, Ground-water hydrology of the Sevier Desert, Utah: U.S. Geological Survey Water-Supply Paper 1854, 75 p.
- Nelson, W. B., and Thomas, H. E., 1953, Pumping from wells on the floor of the Sevier Desert, Utah: American Geophysical Union Transactions, v. 34, no. 1, p. 74-84.
- Torak, L. J., 1982, Modifications and corrections to the finite-difference model for simulation of three-dimensional ground-water flow: U.S. Geological Survey Water-Resources Investigations 82-4025, 30 p., plus appendixes.
- Trescott, P. C., 1975, Documentation of finite-difference model for simulation of three-dimensional ground-water flow: U.S. Geological Survey Open-File Report 75-438, 32 p., plus appendixes.

Trescott, P. C., and Larson, S. P., 1976, Documentation of finite-difference model for simulation of three-dimensional ground-water flow: U.S. Geological Survey Open-File Report 76-591 (supplement to U.S. Geological Survey Open-File Report 75-438), 21 p.

U.S. Department of Agriculture, 1969, Water budget analysis, Sevier River Basin, Utah, Appendix IV: 92 p.

TABLE 3.--LISTING OF THE MODEL DATA FOR THE 1952-81 TRANSIENT-STATE CALIBRATION

GROUP I: TITLE, SIMULATION OPTIONS, AND PROBLEM DIMENSIONS

CARD
NUMBER

1	***** THREE DIMENSIONAL MODEL OF THE SEVIER VALLEY BY WALTER HOLMES AND SCOTT							
2	BARTHOLOMA *****							
3	35	39	6	80	31	1	347	
4	DRAW HEAD MASS		WATE RECH	PUN2 ITKR		HDEP	CHP	

GROUP II: SCALAR PARAMETERS

5	7	40	0.10	5	
6					
7					
8					
9					
10					

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA
 STARTING HEAD MATRIX - LAYER 1
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER		1	1	1					
11									
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	4565.0000	4570.0000	4585.0000	4600.0000	4600.0000	4600.0000	4600.0000	4600.0000
19	4600.0000	4620.0000	0.0	0.0	0.0	4775.0000	4800.0000	4850.0000	
20	4900.0000	5000.0000	5020.0000	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22	0.0	0.0	0.0	0.0	0.0	4519.0000	4528.0000	4541.0000	
23	4550.0000	4560.0000	4565.0000	4570.0000	4580.0000	4590.0000	4600.0000	4600.0000	
24	4600.0000	4600.0000	4600.0000	4610.0000	4620.0000	4645.0000	4670.0000	4685.0000	
25	4690.0000	4700.0000	4710.0000	4720.0000	4725.0000	4730.0000	4735.0000	4740.0000	
26	4745.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
27	0.0	0.0	0.0	0.0	4553.9637	4558.9727	4562.9000	4565.9171	
28	4568.7496	4571.5075	4574.4585	4577.9740	4582.4921	4587.2468	4592.0314	4597.8364	
29	4604.5529	4612.1086	4619.8246	4627.5531	4634.8659	4641.5875	4647.8845	4653.5806	
30	4659.1976	4664.6180	4669.7545	4674.5371	4678.8950	4683.1934	4687.2748	4690.5908	
31	4692.9989	4694.4538	0.0	0.0	0.0	0.0	0.0	0.0	
32	0.0	0.0	0.0	4538.7664	4549.7005	4556.2459	4560.6039	4563.8785	
33	4567.1793	4570.2457	4573.2858	4577.2505	4581.9340	4587.3683	4593.2705	4599.4853	
34	4606.0002	4612.5445	4619.5726	4626.4102	4632.8566	4639.2128	4645.3596	4651.2432	
35	4656.8846	4662.2657	4667.3370	4672.0908	4676.5277	4680.6124	4684.2534	4687.3226	
36	4689.7341	4691.3847	4692.2260	0.0	0.0	0.0	0.0	0.0	
37	0.0	0.0	0.0	4538.2443	4547.8589	4554.1513	4558.6335	4561.8027	
38	4564.7374	4568.2183	4572.0510	4576.5667	4581.5661	4586.9390	4593.2222	4599.6934	
39	4606.2311	4612.7979	4619.2151	4625.8049	4632.4277	4638.6463	4644.4172	4650.0928	
40	4655.6307	4661.0087	4665.9996	4670.6088	4675.0831	4679.3983	4683.1754	4686.2932	
41	4688.9807	4691.2130	4692.9556	4694.3775	4695.2881	0.0	0.0		
42	0.0	0.0	0.0	4537.8593	4546.8982	4552.9557	4557.2827	4560.5361	
43	4563.6262	4567.1837	4571.2471	4576.0627	4581.2714	4586.8561	4593.2275	4599.7063	
44	4606.2772	4612.8166	4619.1142	4625.5699	4632.0837	4638.1945	4643.8593	4649.4230	
45	4654.9058	4660.1100	4665.0463	4669.7222	4674.1805	4678.4229	4682.2911	4685.7439	
46	4688.7749	4691.3617	4693.4360	4694.9926	4696.2862	4697.7367	0.0		
47	0.0	0.0	0.0	4537.5580	4546.2977	4552.2903	4556.4338	4559.5404	
48	4562.8450	4566.5751	4570.9622	4575.7578	4580.9678	4586.9825	4593.2895	4599.5894	
49	4606.2901	4612.8359	4619.0968	4625.4430	4631.8000	4637.8045	4643.4644	4648.9265	
50	4654.2162	4659.3291	4664.2227	4668.9430	4673.4169	4677.7345	4681.7672	4685.4465	
51	4688.7199	4691.5202	4693.7762	4695.4617	4696.8752	4698.0778	0.0		
52	0.0	0.0	0.0	4537.2643	4545.8820	4551.8005	4555.6769	4558.8569	
53	4562.2768	4566.3389	4570.7540	4575.4467	4580.8613	4587.0715	4593.4220	4599.7074	
54	4606.3865	4612.9038	4619.2264	4625.4494	4631.5074	4637.3546	4642.9264	4648.2783	
55	4653.4538	4658.5132	4663.3712	4668.1565	4672.7847	4677.2425	4681.4583	4685.3469	
56	4688.8346	4691.8057	4694.1965	4696.0795	4697.3345	4698.4396	0.0		

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA
 STARTING HEAD MATRIX - LAYER 1 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER	57	0.0	0.0	0.0	4536.9563	4545.4357	4551.3725	4555.1787	4558.4266
58	4561.9409	4566.1568	4570.6575	4575.3834	4580.9000	4587.2100	4593.6252	4600.0250	
59	4606.5369	4612.9430	4619.2415	4625.3117	4631.1869	4636.8753	4642.3867	4647.5715	
60	4652.6248	4657.6715	4662.6320	4667.5202	4672.3053	4676.9450	4681.3544	4685.4042	
61	4689.0590	4692.1846	4694.6368	4696.5774	4698.0950	4699.3517	0.0		
62	0.0	0.0	0.0	4536.6091	4544.9505	4550.9391	4554.7933	4558.1218	
63	4561.7280	4566.0321	4570.6095	4575.4096	4580.9899	4587.3299	4593.7672	4600.1790	
64	4606.6205	4612.9663	4619.2692	4625.1864	4630.8374	4636.3705	4641.7024	4646.7974	
65	4651.8727	4656.9464	4661.9999	4667.0241	4671.9906	4676.8360	4681.4437	4685.6454	
66	4689.4406	4692.7182	4695.2766	4697.2200	4698.5993	0.0	0.0		
67	0.0	0.0	0.0	4536.1891	4544.3845	4550.4755	4554.4252	4557.8368	
68	4561.5153	4565.8392	4570.4917	4575.4183	4581.0403	4587.3179	4593.7638	4600.1838	
69	4606.5972	4612.8944	4619.0861	4624.8240	4630.4303	4635.9344	4641.0969	4646.1125	
70	4651.1911	4656.3166	4661.4788	4666.6624	4671.8316	4676.9037	4681.6804	4686.1798	
71	4690.1507	4693.3011	4695.6988	4697.3820	0.0	0.0	0.0		
72	0.0	0.0	0.0	4535.6464	4543.6608	4549.9270	4553.9946	4557.4566	
73	4561.1417	4565.3174	4570.0486	4575.3683	4581.0196	4586.9609	4593.4823	4600.0036	
74	4606.4297	4612.7701	4618.7781	4624.4378	4629.9699	4635.4028	4640.4897	4645.4752	
75	4650.5746	4655.7737	4661.0615	4666.4183	4671.8060	4677.1436	4682.2990	4687.0738	
76	4690.8819	4693.5641	0.0	0.0	0.0	0.0	0.0		
77	0.0	0.0	0.0	4534.9191	4542.6524	4549.0323	4553.4967	4556.8952	
78	4560.6304	4564.7183	4569.5779	4574.8643	4580.3874	4586.4369	4592.8278	4599.4666	
79	4606.0790	4612.2394	4618.2048	4624.0082	4629.5046	4634.8167	4639.8797	4644.8776	
80	4650.0225	4655.3123	4660.7361	4666.2598	4671.8268	4677.3580	4682.7487	4687.7712	
81	4691.9613	4694.6003	4696.8729	0.0	0.0	0.0	0.0		
82	0.0	0.0	0.0	4533.9275	4541.4921	4547.8255	4552.6141	4556.0535	
83	4559.8082	4563.8314	4568.5006	4573.7745	4579.5004	4585.8162	4592.2265	4598.4681	
84	4605.0708	4611.5575	4617.5787	4623.3012	4628.7803	4634.1143	4639.2664	4644.3307	
85	4649.5307	4654.9222	4660.4836	4666.1471	4671.8184	4677.3956	4682.8661	4688.1454	
86	4692.5244	4695.4356	4696.6933	0.0	0.0	0.0	0.0		
87	0.0	0.0	0.0	4532.5482	4540.0858	4546.1745	4551.0977	4555.0628	
88	4558.7778	4562.8229	4567.3549	4572.5602	4578.3021	4584.4527	4590.9878	4597.3628	
89	4603.6261	4610.1399	4616.4405	4622.2137	4627.6957	4633.1248	4638.6287	4643.8780	
90	4649.0790	4654.5773	4660.2839	4666.0640	4671.7438	4677.3437	4683.1491	4688.6973	
91	4693.0144	4695.6891	0.0	0.0	0.0	0.0	0.0		
92	0.0	0.0	0.0	4530.6053	4538.4244	4544.2921	4548.6920	4553.1203	
93	4557.5992	4561.4176	4565.9460	4571.1589	4576.9762	4583.0394	4589.1228	4595.4300	
94	4601.9379	4608.3668	4614.6018	4620.5273	4626.2058	4631.7552	4637.3247	4642.9883	
95	4648.4998	4654.1699	4660.0999	4666.0433	4671.7681	4677.3989	4683.4365	4689.1939	
96	4693.3098	4694.9973	0.0	0.0	0.0	0.0	0.0		
97	0.0	0.0	4508.1363	4527.8631	4536.5630	4542.3463	4546.6826	4550.6119	
98	4555.3859	4559.8627	4564.3482	4569.5787	4575.2186	4581.2704	4587.3251	4593.2671	
99	4599.4352	4605.7822	4612.1979	4618.3719	4624.2268	4629.9376	4635.4875	4641.3330	
100	4647.3154	4653.4823	4659.9065	4666.1244	4671.8245	4677.4241	4683.0152	4689.4235	
101	4693.4028	0.0	0.0	0.0	0.0	0.0	0.0		
102	0.0	4488.2656	4508.0498	4525.8373	4534.6437	4540.4413	4544.6899	4548.4506	

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA

STARTING HEAD MATRIX - LAYER 1 (CONT)
952 STEADY-STATE VALUES FOR INITIAL HEADS
(FT)

CARD NUMBER	103	4552.6983	4557.3173	4562.1632	4567.7964	4573.6162	4579.2654	4585.2491	4591.1321
104	4596.9846	4603.0361	4609.1729	4615.3871	4621.6081	4627.6474	4633.3582	4639.4401	
105	4645.8221	4652.4631	4659.2538	4665.8536	4671.7827	4677.0642	4680.9786	0.0	
106	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
107	0.0	4488.2898	4508.1790	4524.5199	4533.0106	4538.7074	4542.8462	4546.4536	
108	4550.4327	4554.7925	4559.5509	4564.8638	4570.7411	4576.9421	4583.0191	4588.5873	
109	4594.3568	4600.2293	4606.1531	4612.1354	4618.1881	4624.3657	4630.5008	4636.9567	
110	4643.8225	4651.0460	4658.4369	4665.6142	4671.9950	4676.8467	4679.7605	0.0	
111	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
112	0.0	4488.3367	4508.4231	4523.5081	4531.6732	4537.2173	4541.2339	4544.7096	
113	4548.5072	4552.6679	4557.2304	4562.2456	4567.6961	4573.4763	4579.4954	4585.2085	
114	4590.8886	4596.5722	4602.2780	4608.0519	4613.9585	4620.0776	4626.4702	4633.3446	
115	4640.8121	4648.8030	4657.0370	4664.9966	4671.8439	4676.4328	4678.6116	0.0	
116	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
117	0.0	4488.4060	4508.7377	4522.7933	4530.6445	4536.0112	4539.9030	4543.2592	
118	4546.9097	4550.8948	4555.2493	4559.9915	4565.0976	4570.4876	4576.0361	4581.5431	
119	4587.0079	4592.4538	4597.9319	4603.5237	4609.3245	4615.4499	4622.0381	4629.2693	
120	4637.2747	4645.9886	4655.0337	4663.6880	4670.8536	4675.1070	4676.5330	0.0	
121	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
122	0.0	4488.4997	4509.1046	4522.3573	4529.9250	4535.1138	4538.8866	4542.1363	
123	4545.6575	4549.4846	4553.6376	4558.1235	4562.9169	4567.9542	4573.1341	4578.3379	
124	4583.5288	4588.7318	4594.0177	4599.4772	4605.2133	4611.3512	4618.0351	4625.4430	
125	4633.7486	4643.0087	4652.7712	4661.9959	4669.4556	4673.6902	4674.9352	0.0	
126	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
127	0.0	4488.6249	4509.5270	4522.1844	4529.5118	4534.5407	4538.2070	4541.3636	
128	4544.7745	4548.4586	4552.4218	4556.6556	4561.1401	4565.8315	4570.6543	4575.5314	
129	4580.4425	4585.4307	4590.5717	4595.9472	4601.6461	4607.7674	4614.4225	4621.7477	
130	4629.9688	4639.6957	4650.4508	4660.2857	4668.0594	4672.4840	4673.9769	0.0	
131	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
132	0.0	4488.7929	4510.0172	4522.2592	4529.3998	4534.2999	4537.8764	4540.9565	
133	4544.2738	4547.8322	4551.6144	4555.5967	4559.7648	4564.1038	4568.5777	4573.1500	
134	4577.8293	4582.6662	4587.7292	4593.0772	4598.7628	4604.8295	4611.2993	4618.1504	
135	4625.2967	4634.4876	4648.1985	4658.9380	4666.9890	4671.3749	0.0	0.0	
136	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
137	0.0	4489.0190	4510.5927	4522.5779	4529.5890	4534.3912	4537.8979	4540.9121	
138	4544.1503	4547.5979	4551.2123	4554.9470	4558.7998	4562.7965	4566.9568	4571.2877	
139	4575.8179	4580.5944	4585.6625	4591.0464	4596.7478	4602.7379	4608.9293	4615.0963	
140	4620.7047	4625.4039	0.0	0.0	0.0	0.0	0.0	0.0	
141	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
142	0.0	4489.3231	4511.2663	4523.1443	4530.0854	4534.8188	4538.2614	4541.2150	
143	4544.3771	4547.7207	4551.1811	4554.6862	4558.2490	4561.9455	4565.8576	4570.0365	
144	4574.5181	4579.3367	4584.5022	4589.9911	4595.7451	4601.6695	4607.5928	4613.1935	
145	4617.8555	4621.0932	0.0	0.0	0.0	0.0	0.0	0.0	
146	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
147	0.0	4489.7233	4512.0546	4523.9741	4530.9087	4535.5888	4538.9595	4541.8389	
148	4544.9113	4548.1407	4551.4421	4554.7467	4558.0828	4561.5591	4565.3171	4569.4429	

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA
 STARTING HEAD MATRIX - LAYER 1 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER	4573.9808	4578.9402	4584.2921	4589.9513	4595.7925	4601.6660	4607.3557	4612.5222
149	4616.6124	4619.2694	0.0	0.0	0.0	0.0	0.0	0.0
150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152	0.0	4490.2235	4512.9642	4525.0950	4532.0805	4536.7191	4539.9954	4542.7722
153	4545.7235	4548.8125	4551.9438	4555.0763	4558.2573	4561.6128	4565.3207	4569.4928
154	4574.1762	4579.3606	4584.9669	4590.8407	4596.7832	4602.6013	4608.0715	4612.8709
155	4616.5468	4618.8819	0.0	0.0	0.0	0.0	0.0	0.0
156	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157	0.0	4490.7899	4513.9933	4526.5429	4533.6053	4538.2340	4541.3901	4544.0267
158	4546.8109	4549.7165	4552.6728	4555.6638	4558.7535	4562.0791	4565.8274	4570.1195
159	4575.0081	4580.4609	4586.3488	4592.4417	4598.4622	4604.1919	4609.4232	4613.8822
160	4617.2126	4619.3072	0.0	0.0	0.0	0.0	0.0	0.0
161	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162	0.0	4491.5238	4515.4117	4528.8067	4535.8904	4540.6314	4543.6241	4546.0487
163	4548.5764	4551.2068	4553.9305	4556.7687	4559.7998	4563.1633	4567.0242	4571.5082
164	4576.6617	4582.4294	4588.6231	4594.9273	4600.9726	4606.5241	4611.4196	4615.4783
165	4618.4510	4620.3155	0.0	0.0	0.0	0.0	0.0	0.0
166	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167	0.0	4492.5363	4517.7074	4533.2546	4539.5685	4545.3862	4548.1721	4550.2605
168	4552.4564	4554.6564	4557.0072	4559.6010	4562.5326	4565.9258	4569.9117	4574.5876
169	4579.9645	4585.9315	4592.2437	4598.5284	4604.3940	4609.6182	4614.0915	4617.7186
170	4620.3434	4621.9919	0.0	0.0	0.0	0.0	0.0	0.0
171	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172	0.0	4493.5393	4521.2315	4542.4001	4580.0000	4558.3217	4559.4327	4560.3620
173	4561.3524	4562.5553	4564.1886	4566.2798	4568.8773	4572.0537	4575.8835	4580.3884
174	4585.5029	4591.0550	4596.7787	4602.3609	4607.5674	4612.2478	4616.2973	4619.6061
175	4622.0228	4623.6444	0.0	0.0	0.0	0.0	0.0	0.0
176	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177	0.0	0.0	4521.3020	0.0	0.0	0.0	4573.4016	4573.9441
178	4574.5575	4575.3905	4576.5342	4578.0694	4580.0665	4582.5677	4585.5484	4588.8980
179	4592.4856	4596.1729	4599.8765	4603.5434	4607.0885	4610.3512	4613.1454	4615.2319
180	4616.3792	0.0	0.0	0.0	0.0	0.0	0.0	0.0
181	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
182	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
183	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
184	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
186	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 2
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER		1	1	1					
187		1							
188	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
189	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
191	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
192	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
193	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
194	0.0	4565.0000	4570.0000	4585.0000	4600.0000	4600.0000	4600.0000	4600.0000	4600.0000
195	4600.0000	4620.0000	0.0	0.0	0.0	4775.0000	4800.0000	4850.0000	
196	4900.0000	5000.0000	5020.0000	0.0	0.0	0.0	0.0	0.0	0.0
197	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
198	0.0	0.0	0.0	0.0	0.0	4519.0000	4528.0000	4541.0000	
199	4550.0000	4560.0000	4565.0000	4570.0000	4580.0000	4590.0000	4600.0000	4600.0000	
200	4600.0000	4600.0000	4600.0000	4610.0000	4620.0000	4645.0000	4670.0000	4680.0000	
201	4690.0000	4700.0000	4710.0000	4720.0000	4725.0000	4730.0000	4735.0000	4740.0000	
202	4745.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
203	0.0	0.0	0.0	0.0	4553.5160	4558.9591	4563.1229	4566.1592	
204	4568.8946	4571.4866	4574.2063	4577.4219	4581.6722	4586.5005	4591.3190	4597.1606	
205	4603.9289	4611.5534	4619.4108	4627.2640	4634.7401	4641.5959	4647.9978	4653.7898	
206	4659.4755	4664.9512	4670.1343	4674.9630	4679.3817	4683.8061	4687.9618	4691.3813	
207	4693.9445	4695.7062	0.0	0.0	0.0	0.0	0.0	0.0	
208	0.0	0.0	0.0	4538.0361	4549.4232	4556.2886	4560.7975	4564.0212	
209	4567.1245	4570.0012	4572.8360	4576.6130	4581.2461	4586.6531	4592.6646	4598.9492	
210	4605.5961	4612.2395	4619.3502	4626.2891	4632.8251	4639.2521	4645.4465	4651.3656	
211	4657.0368	4662.4431	4667.5369	4672.3105	4676.7701	4680.8840	4684.5622	4687.6556	
212	4690.0844	4691.7655	4692.6516	0.0	0.0	0.0	0.0	0.0	
213	0.0	0.0	0.0	4537.5496	4547.5779	4553.9950	4558.4180	4561.5560	
214	4564.3884	4567.7156	4571.4485	4575.8718	4580.9352	4586.3382	4592.6588	4599.2545	
215	4605.8869	4612.5703	4619.0742	4625.7304	4632.4028	4638.6644	4644.4696	4650.1670	
216	4655.7180	4661.1018	4666.0972	4670.7234	4675.2266	4679.5945	4683.4406	4686.5735	
217	4689.2074	4691.4337	4693.1890	4694.6456	4695.6195	0.0	0.0	0.0	
218	0.0	0.0	0.0	4537.1911	4546.5940	4552.6880	4556.9058	4560.1318	
219	4563.1258	4566.6020	4570.5750	4575.3400	4580.6363	4586.2622	4592.6885	4599.2903	
220	4605.9501	4612.5999	4618.9815	4625.4964	4632.0507	4638.1955	4643.8900	4649.4694	
221	4654.9573	4660.1630	4665.1027	4669.7843	4674.2572	4678.5219	4682.4297	4685.9125	
222	4688.9758	4691.6480	4693.7757	4695.3855	4696.9255	4698.7000	0.0	0.0	
223	0.0	0.0	0.0	4536.9107	4545.9681	4551.9556	4556.0584	4559.0875	
224	4562.3202	4565.9524	4570.2714	4575.1217	4580.3590	4586.4059	4592.8218	4599.2036	
225	4605.9741	4612.6184	4618.9546	4625.3575	4631.7511	4637.7887	4643.4705	4648.9458	
226	4654.2420	4659.3552	4664.2504	4668.9730	4673.4543	4677.7884	4681.8501	4685.5702	
227	4688.9030	4691.7707	4694.0729	4695.8206	4697.4688	4699.0339	0.0	0.0	
228	0.0	0.0	0.0	4536.6392	4545.5256	4551.4943	4555.2986	4558.4219	
229	4561.7463	4565.7081	4570.1536	4574.8602	4580.2930	4586.5292	4592.9905	4599.3484	
230	4606.0832	4612.6813	4619.0663	4625.3459	4631.4424	4637.3203	4642.9118	4648.2766	
231	4653.4570	4658.5165	4663.3749	4668.1604	4672.7945	4677.2726	4681.5298	4685.4952	
232	4689.0880	4692.1250	4694.5370	4696.4807	4697.7569	4699.4864	0.0	0.0	

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
STARTING HEAD MATRIX - LAYER 2 (CONT)
1952 STEADY-STATE VALUES FOR INITIAL HEADS
(FT)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 2 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER	279	4552.2158	4556.7827	4561.6130	4567.2277	4573.1727	4578.9035	4584.9648	4590.9338
280	4596.8259	4602.8675	4608.9574	4615.1085	4621.2647	4627.3102	4633.0313	4639.1402	
281	4645.5898	4652.3462	4659.3089	4666.1720	4672.4998	4678.4068	4682.5922	0.0	
282	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
283	0.0	4487.9870	4507.9345	4524.4885	4532.8249	4538.4500	4542.5246	4546.0754	
284	4549.9956	4554.3080	4559.0384	4564.3320	4570.2111	4576.4384	4582.6563	4588.3199	
285	4594.1346	4600.0034	4605.8834	4611.7969	4617.7744	4623.8915	4630.0081	4636.4973	
286	4643.4821	4650.9074	4658.5905	4666.1949	4673.1446	4678.4996	4681.7330	0.0	
287	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
288	0.0	4488.0311	4508.2460	4523.4491	4531.4730	4536.9406	4540.9050	4544.3352	
289	4548.0885	4552.2111	4556.7505	4561.7607	4567.2269	4573.0413	4579.1068	4584.8917	
290	4590.6119	4596.2863	4601.9345	4607.6232	4613.4353	4619.4669	4625.8131	4632.7193	
291	4640.3585	4648.6615	4657.3529	4665.9918	4673.6899	4678.3769	4680.4865	0.0	
292	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
293	0.0	4488.0947	4508.6023	4522.7205	4530.4379	4535.7221	4539.5659	4542.8837	
294	4546.4965	4550.4520	4554.7894	4559.5363	4564.6726	4570.1145	4575.7246	4581.2895	
295	4586.7757	4592.1937	4597.6035	4603.1047	4608.8105	4614.8503	4621.3873	4628.6493	
296	4636.8364	4645.8868	4655.4248	4664.8188	4672.8610	4676.8665	4677.0948	0.0	
297	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
298	0.0	4488.1805	4508.9940	4522.2808	4529.7182	4534.8163	4538.5423	4541.7584	
299	4545.2500	4549.0538	4553.1977	4557.6938	4562.5232	4567.6206	4572.8642	4578.1060	
300	4583.2838	4588.4277	4593.6302	4598.9969	4604.6427	4610.7076	4617.3600	4624.8211	
301	4633.3235	4642.9048	4653.1284	4663.0722	4671.4042	4675.3663	4675.2939	0.0	
302	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
303	0.0	4488.2955	4509.4307	4522.1052	4529.3085	4534.2392	4537.8592	4540.9884	
304	4544.3772	4548.0487	4552.0102	4556.2548	4560.7719	4565.5117	4570.3792	4575.2517	
305	4580.1102	4585.0133	4590.0641	4595.3529	4600.9759	4607.0537	4613.7201	4621.1464	
306	4629.5977	4639.5876	4650.6908	4661.1493	4669.7551	4674.0606	4674.2923	0.0	
307	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
308	0.0	4488.4487	4509.9290	4522.1771	4529.1987	4533.9968	4537.5323	4540.5913	
309	4543.8995	4547.4587	4551.2479	4555.2350	4559.4130	4563.7655	4568.2404	4572.7717	
310	4577.3694	4582.1113	4587.0878	4592.3657	4598.0063	4604.0727	4610.6130	4617.6437	
311	4625.1224	4634.5801	4648.3598	4659.5826	4668.4252	4673.2186	0.0	0.0	
312	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
313	0.0	4488.6573	4510.5052	4522.4898	4529.3834	4534.0899	4537.5628	4540.5678	
314	4543.8126	4547.2795	4550.9157	4554.6413	4558.4607	4562.4211	4566.5363	4570.7990	
315	4575.2386	4579.9242	4584.9235	4590.2650	4595.9598	4601.9988	4608.3200	4614.7385	
316	4620.7692	4625.9289	0.0	0.0	0.0	0.0	0.0	0.0	
317	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
318	0.0	4488.9450	4511.1801	4523.0469	4529.8721	4534.5180	4537.9376	4540.8941	
319	4544.0821	4547.4711	4550.9776	4554.4586	4557.9336	4561.5335	4565.3597	4569.4545	
320	4573.8538	4578.6040	4583.7320	4589.2170	4595.0072	4601.0256	4607.1240	4613.0163	
321	4618.1408	4621.9425	0.0	0.0	0.0	0.0	0.0	0.0	
322	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
323	0.0	4489.3386	4511.9680	4523.8633	4530.6884	4535.2888	4538.6435	4541.5339	
324	4544.6485	4547.9437	4551.2944	4554.5641	4557.7929	4561.1216	4564.7638	4568.8050	

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 2 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER												
325		4573.2801	4578.2099	4583.5719	4589.2789	4595.2033	4601.2090	4607.0983	4612.5582			
326		4617.0908	4620.3349	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
327		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
328		0.0	4489.8522	4512.8780	4524.9682	4531.8681	4536.4278	4539.6828	4542.4709			
329		4545.4737	4548.6454	4551.8083	4554.8923	4557.9563	4561.1485	4564.7352	4568.8332			
330		4573.4870	4578.6937	4584.3776	4590.3686	4596.4428	4602.4182	4608.0925	4613.1525			
331		4617.2025	4620.0889	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
332		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
333		0.0	4490.4406	4513.9109	4526.4056	4533.4335	4537.9670	4541.0843	4543.7172			
334		4546.5385	4549.5128	4552.4843	4555.4233	4558.4034	4561.5816	4565.2231	4569.4666			
335		4574.3688	4579.9092	4585.9601	4592.2511	4598.4399	4604.3270	4609.7438	4614.4083			
336		4618.0188	4620.6008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
337		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
338		0.0	4491.1952	4515.3438	4528.6989	4535.8331	4540.4357	4543.3471	4545.7307			
339		4548.2484	4550.8889	4553.6053	4556.3980	4559.3473	4562.6163	4566.4116	4570.8877			
340		4576.1140	4582.0518	4588.5129	4595.1122	4601.3459	4607.0092	4611.9974	4616.1701			
341		4619.3420	4621.6382	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
342		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
343		0.0	4492.2195	4517.7028	4533.4781	4539.8670	4545.4689	4548.0816	4550.0552			
344		4552.1593	4554.3043	4556.6136	4559.1621	4562.0394	4565.3759	4569.3374	4574.0511			
345		4579.5493	4585.7361	4592.3463	4598.9340	4604.9695	4610.2665	4614.7780	4618.4665			
346		4621.2461	4623.2733	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
347		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
348		0.0	4493.2541	4521.4113	4543.9748	4580.0000	4558.9154	4559.6440	4560.3727			
349		4561.2393	4562.3779	4563.9661	4566.0142	4568.5656	4571.7062	4575.5384	4580.1116			
350		4585.3646	4591.1102	4597.0529	4602.7951	4608.1053	4612.8607	4616.9900	4620.4111			
351		4622.9928	4624.9295	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
352		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
353		0.0	0.0	4521.3045	0.0	0.0	0.0	4573.4700	4574.2873			
354		4574.8576	4575.6238	4576.7020	4578.1759	4580.1288	4582.6227	4585.6431	4589.0328			
355		4592.6564	4596.3321	4600.0017	4603.6577	4607.2449	4610.5755	4613.4707	4615.6586			
356		4616.8903	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
357		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
358		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
359		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
360		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
361		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
362		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

TABLE 3---CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 3
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER		1	1	1					
363		1							
364		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
365		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
366		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
367		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
368		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
369		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
370		0.0	4565.0000	4570.0000	4585.0000	4600.0000	4600.0000	4600.0000	4600.0000
371		4600.0000	4620.0000	0.0	0.0	0.0	4775.0000	4800.0000	4850.0000
372		4900.0000	5000.0000	5020.0000	0.0	0.0	0.0	0.0	0.0
373		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
374		0.0	0.0	0.0	0.0	4519.0000	4528.0000	4541.0000	
375		4550.0000	4560.0000	4565.0000	4570.0000	4580.0000	4590.0000	4600.0000	4600.0000
376		4600.0000	4600.0000	4600.0000	4610.0000	4620.0000	4645.0000	4670.0000	4680.0000
377		4690.0000	4700.0000	4710.0000	4720.0000	4725.0000	4730.0000	4735.0000	4740.0000
378		4745.0000	0.0	0.0	0.0	0.0	0.0	0.0	
379		0.0	0.0	0.0	0.0	4552.0660	4558.9310	4563.9306	4566.9884
380		4569.4043	4571.4904	4573.5057	4575.7243	4578.8992	4583.0634	4588.0099	4593.9943
381		4600.9928	4608.8480	4617.1433	4625.5873	4633.8474	4641.6820	4648.9760	4655.6576
382		4661.9235	4667.8717	4673.4452	4678.6371	4683.5261	4688.2774	4692.8033	4696.9342
383		4700.5089	4703.1113	0.0	0.0	0.0	0.0	0.0	
384		0.0	0.0	0.0	4536.3581	4548.5852	4556.4865	4561.5779	4564.6376
385		4567.0226	4568.9846	4570.7505	4573.5165	4577.4899	4582.5418	4588.4634	4595.0418
386		4602.1906	4609.6622	4617.3853	4625.0751	4632.5778	4639.7310	4646.3778	4652.6322
387		4658.5898	4664.2640	4669.5829	4674.5399	4679.1941	4683.5858	4687.6494	4690.9656
388		4693.5127	4695.5269	4696.5259	0.0	0.0	0.0	0.0	
389		0.0	0.0	0.0	4535.9581	4546.7473	4553.5669	4557.7124	4560.4827
390		4562.8436	4565.2862	4568.1664	4571.8846	4576.5966	4582.1669	4588.5569	4595.5427
391		4602.8859	4610.3426	4617.7446	4625.0542	4632.1708	4638.8858	4645.1349	4651.0647
392		4656.7467	4662.1837	4667.3257	4672.2235	4677.0810	4682.2533	4688.2238	4691.6557
393		4692.6837	4694.7185	4696.5574	4697.9272	4698.7948	0.0	0.0	
394		0.0	0.0	0.0	4535.6630	4545.7002	4551.9059	4555.6197	4558.2552
395		4560.6938	4563.4514	4566.8295	4571.0672	4576.1817	4582.0610	4588.6670	4595.7421
396		4603.0837	4610.4704	4617.7245	4624.8362	4631.7325	4638.2342	4644.3016	4650.0632
397		4655.5826	4660.8437	4665.8563	4670.6595	4675.3274	4679.9634	4684.5942	4688.5031
398		4692.0810	4696.8560	4699.8902	4701.9367	4703.3052	4703.6492	0.0	
399		0.0	0.0	0.0	4535.4339	4545.0002	4550.8810	4554.3860	4556.9193
400		4559.4923	4562.4869	4566.1976	4570.7404	4576.0680	4582.1738	4588.8978	4595.9261
401		4603.1753	4610.4548	4617.5892	4624.5499	4631.2721	4637.6262	4643.5794	4649.2148
402		4654.5911	4659.7330	4664.6589	4669.4136	4674.0220	4678.5376	4682.9867	4687.2843
403		4691.5280	4695.5793	4698.5567	4701.0544	4703.1508	4703.8916	0.0	
404		0.0	0.0	0.0	4535.2122	4544.4400	4550.1704	4553.5418	4556.1120
405		4558.8304	4562.0636	4566.0252	4570.7357	4576.2607	4582.5305	4589.3261	4596.2852
406		4603.3515	4610.4212	4617.3996	4624.1848	4630.7065	4636.9090	4642.7505	4648.2659
407		4653.5201	4658.5690	4663.4399	4668.2002	4672.8911	4677.5895	4682.4188	4687.5390

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 3 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER	408	4692.8727	4696.8557	4699.3509	4702.3001	4705.1865	4705.1102	0.0	
409		0.0	0.0	0.0	4534.9883	4543.9529	4549.6519	4553.0674	4555.7718
410		4558.6766	4562.0800	4566.2126	4571.0864	4576.7714	4583.1472	4589.9748	4596.8543
411		4603.6827	4610.4567	4617.1828	4623.7337	4630.0501	4636.0987	4641.8337	4647.2314
412		4652.3778	4657.3664	4662.2447	4667.0856	4671.9869	4677.1240	4682.7532	4689.2850
413		4697.1121	4701.2630	4701.8827	4705.0101	4707.1014	4706.5568	0.0	
414		0.0	0.0	0.0	4534.7424	4543.4921	4549.2545	4552.8488	4555.8097
415		4559.0076	4562.4692	4566.6729	4571.6942	4577.4993	4583.9046	4590.6633	4597.4371
416		4604.0733	4610.5794	4617.0250	4623.2987	4629.3740	4635.2438	4640.8339	4646.1213
417		4651.1995	4656.1674	4661.1048	4666.1192	4671.3819	4677.1839	4683.7216	4691.3551
418		4700.0976	4703.8492	4703.4276	4705.1760	4706.5918	0.0	0.0	
419		0.0	0.0	0.0	4534.4493	4542.9993	4548.8783	4552.7104	4556.0267
420		4559.8233	4563.1277	4567.2379	4572.3778	4578.2677	4584.6546	4591.3001	4597.9260
421		4604.4021	4610.7095	4616.8820	4622.8693	4628.7176	4634.4079	4639.8239	4644.9879
422		4650.0101	4654.9925	4660.0563	4665.3677	4671.1779	4677.8083	4685.3759	4694.1583
423		4702.8918	4705.1963	4704.5920	4705.9518	0.0	0.0	0.0	
424		0.0	0.0	0.0	4534.0737	4542.4064	4548.4159	4552.4284	4555.9399
425		4560.0486	4563.6256	4567.5302	4572.7444	4578.7090	4585.0482	4591.6017	4598.1469
426		4604.5296	4610.7240	4616.6938	4622.4518	4628.0883	4633.5792	4638.8129	4643.8523
427		4648.8400	4653.8987	4659.1904	4664.9606	4671.4984	4678.9604	4687.7075	4698.3868
428		4706.9212	4709.7099	0.0	0.0	0.0	0.0	0.0	
429		0.0	0.0	0.0	4533.5682	4541.6445	4547.7744	4551.9029	4555.3461
430		4559.3531	4562.8474	4567.1837	4572.5846	4578.5910	4584.9526	4591.4601	4597.9676
431		4604.3451	4610.4621	4616.3225	4621.9697	4627.4497	4632.7469	4637.8231	4642.7627
432		4647.7643	4652.9942	4658.6628	4665.0400	4672.1912	4680.2588	4689.5215	4699.9760
433		4709.5653	4713.1369	4716.2040	0.0	0.0	0.0	0.0	
434		0.0	0.0	0.0	4532.8625	4540.6895	4547.0244	4551.1275	4554.2950
435		4557.9201	4561.7890	4566.4063	4571.8799	4577.9382	4584.3708	4590.9015	4597.3337
436		4603.6871	4609.8430	4615.7010	4621.2875	4626.6657	4631.8704	4636.9057	4641.8445
437		4646.9549	4652.4701	4658.6372	4665.4973	4673.1406	4681.8698	4692.1111	4703.1488
438		4711.8466	4716.4803	4720.0000	0.0	0.0	0.0	0.0	
439		0.0	0.0	0.0	4531.8449	4539.4361	4545.7163	4549.7401	4552.9134
440		4556.5074	4560.5727	4565.2971	4570.7716	4576.8177	4583.2259	4589.7672	4596.2131
441		4602.5265	4608.7015	4614.6181	4620.2194	4625.5897	4630.8362	4636.0441	4641.2378
442		4646.6250	4652.4764	4658.9717	4666.1530	4674.1953	4683.6487	4695.1614	4703.4418
443		4712.4614	4717.2507	0.0	0.0	0.0	0.0	0.0	
444		0.0	0.0	0.0	4530.3226	4537.8410	4543.9277	4547.8135	4551.0576
445		4554.8965	4559.0590	4563.8209	4569.2672	4575.2757	4581.6260	4588.0912	4594.5258
446		4600.8545	4607.0290	4612.9575	4618.6211	4624.0783	4629.4564	4634.8719	4640.4376
447		4646.2493	4652.5038	4659.3483	4666.8308	4675.1445	4684.7934	4696.1326	4703.1922
448		4710.9928	4730.0000	0.0	0.0	0.0	0.0	0.0	
449		0.0	0.0	4506.4030	4527.9812	4535.9317	4541.6416	4545.5285	4548.9516
450		4552.8934	4557.2339	4562.0074	4567.4120	4573.3388	4579.6127	4586.0288	4592.3972
451		4598.6508	4604.7569	4610.6931	4616.4376	4622.0135	4627.5489	4633.1613	4639.0751
452		4645.3975	4652.2126	4659.5792	4667.4963	4676.0851	4685.5593	4695.0597	4702.2074
453		4708.5840	0.0	0.0	0.0	0.0	0.0	0.0	

TABLE 3.--CONTINUED.

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 3 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 3 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER	4543.8434	4547.3778	4550.9414	4554.0988	4556.9644	4559.7683	4563.0440	4566.8183
500	4571.0929	4575.9126	4581.2894	4587.1338	4593.3027	4599.7055	4606.1980	4612.5351
501	4618.5436	4623.1567	0.0	0.0	0.0	0.0	0.0	0.0
502	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
503	0.0	4489.0085	4512.6202	4524.5797	4531.2043	4535.5121	4538.7090	4541.5322
504	4544.7175	4548.2261	4551.4969	4554.4224	4557.1010	4559.7105	4562.9074	4566.7739
505	4571.3262	4576.5854	4582.5044	4588.8621	4595.3353	4601.7942	4608.1026	4613.9305
506	4619.1668	4623.1983	0.0	0.0	0.0	0.0	0.0	0.0
507	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
508	0.0	4489.6517	4513.6618	4525.9627	4532.8842	4537.1181	4540.1195	4542.7412
509	4545.7046	4548.9719	4551.9997	4554.7727	4557.3928	4560.0379	4563.3345	4567.4173
510	4572.3516	4578.1621	4584.7374	4591.6792	4598.3829	4604.7500	4610.7753	4616.0347
511	4620.4569	4623.8684	0.0	0.0	0.0	0.0	0.0	0.0
512	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
513	0.0	4490.4559	4515.1300	4528.2865	4535.6427	4539.7894	4542.4488	4544.7100
514	4547.2048	4549.8958	4552.6067	4555.2631	4557.9506	4560.9107	4564.4927	4568.9314
515	4574.3735	4580.8544	4588.2090	4595.8459	4602.6437	4608.5960	4613.8135	4618.2647
516	4621.9781	4624.9131	0.0	0.0	0.0	0.0	0.0	0.0
517	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
518	0.0	4491.5008	4517.6803	4534.1027	4540.8809	4545.7361	4547.7914	4549.4172
519	4551.2110	4553.1952	4555.3869	4557.8060	4560.5088	4563.6557	4567.5230	4572.3375
520	4578.2097	4585.0853	4592.6751	4600.2994	4606.8360	4612.2982	4616.8675	4620.6805
521	4623.8788	4626.4003	0.0	0.0	0.0	0.0	0.0	0.0
522	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
523	0.0	4492.6088	4521.8081	4547.6644	4580.0000	4560.3977	4560.0897	4560.3690
524	4560.8668	4561.8261	4563.2847	4565.2071	4567.6114	4570.6197	4574.4445	4579.2222
525	4584.9095	4591.2763	4597.9520	4604.1747	4609.7745	4614.7359	4619.0916	4622.8416
526	4625.9065	4628.0289	0.0	0.0	0.0	0.0	0.0	0.0
527	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
528	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
529	0.0	0.0	4580.0000	0.0	0.0	0.0	4670.0000	4575.2419
530	4575.5588	4576.1606	4577.0897	4578.4196	4580.2605	4582.7345	4585.8710	4589.3548
531	4593.0750	4596.7067	4600.2687	4603.8779	4607.5724	4611.0479	4614.1941	4616.6187
532	4618.0720	0.0	0.0	0.0	0.0	0.0	0.0	0.0
533	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
534	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
535	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
536	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
537	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
538	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 4
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER		1	1	1					
539									
540	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
541	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
542	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
543	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
544	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
545	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
546	0.0	4565.0000	4570.0000	4585.0000	4600.0000	4600.0000	4600.0000	4600.0000	4600.0000
547	4600.0000	4620.0000	0.0	0.0	0.0	4775.0000	4800.0000	4850.0000	
548	4900.0000	5000.0000	5020.0000	0.0	0.0	0.0	0.0	0.0	0.0
549	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
550	0.0	0.0	0.0	0.0	0.0	4555.9991	4559.7202	4561.9119	
551	4568.0721	4570.5604	4574.6211	4578.4353	4579.5217	4579.9667	4580.5510	4582.3325	
552	4588.5407	4591.5882	4597.4619	4617.3256	4631.9153	4649.7127	4666.6804	4677.4805	
553	4683.9637	4697.8588	4708.7518	4717.9731	4724.3916	4730.7129	4739.4322	4748.4455	
554	4755.6765	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
555	0.0	0.0	0.0	0.0	4548.1676	4558.9538	4566.8820	4569.4892	
556	4570.9921	4572.0285	4572.7309	4572.3560	4573.9481	4576.9987	4581.5574	4587.6837	
557	4595.2396	4604.1522	4613.5509	4623.5217	4633.3957	4643.0107	4651.8943	4659.7085	
558	4666.7603	4673.5708	4679.7977	4685.4641	4690.8466	4696.1744	4701.6018	4707.2052	
559	4713.1401	4719.3703	0.0	0.0	0.0	0.0	0.0	0.0	
560	0.0	0.0	0.0	4532.4852	4547.4118	4557.3834	4565.0811	4567.4974	
561	4568.5445	4568.6143	4566.4610	4567.2325	4570.2609	4575.1574	4581.1596	4588.3170	
562	4596.4819	4605.2474	4614.3437	4623.3684	4632.5876	4641.1188	4648.2730	4654.9112	
563	4661.3232	4667.5465	4673.2275	4678.3385	4683.1013	4687.6361	4692.1355	4695.5834	
564	4698.2554	4701.3981	4704.0631	0.0	0.0	0.0	0.0	0.0	
565	0.0	0.0	0.0	4532.3077	4545.6594	4553.1126	4557.2545	4559.1472	
566	4559.9656	4560.5847	4561.7066	4564.2415	4568.5334	4574.4498	4581.3791	4589.3862	
567	4598.3215	4607.2418	4616.0445	4624.4885	4632.5965	4640.0573	4646.6959	4652.8405	
568	4658.7004	4664.3153	4669.6345	4674.6820	4679.8057	4686.3812	4703.3457	4706.6950	
569	4696.6811	4698.0057	4699.8749	4700.5091	4701.2839	0.0	0.0		
570	0.0	0.0	0.0	4532.1782	4544.5059	4550.7689	4553.7823	4555.1821	
571	4555.8933	4557.0545	4559.2856	4562.8990	4567.8993	4574.2531	4581.6310	4589.8287	
572	4598.7136	4607.5557	4616.1868	4624.3400	4632.0440	4639.1357	4645.5277	4651.4604	
573	4657.0747	4662.3819	4667.4205	4672.2602	4676.9276	4681.6264	4687.1412	4691.0939	
574	4695.2496	4712.7234	4717.6259	4720.0191	4720.7469	4710.8633	0.0		
575	0.0	0.0	0.0	4532.0826	4543.7102	4549.3348	4551.8185	4552.9207	
576	4553.8222	4555.4208	4558.1835	4562.3712	4567.8665	4574.4198	4582.0700	4590.2622	
577	4598.6950	4607.3469	4615.8352	4623.8032	4631.2857	4638.1863	4644.4315	4650.2122	
578	4655.6508	4660.7625	4665.6145	4670.2993	4674.7960	4679.0785	4683.3843	4687.7605	
579	4692.9987	4699.3094	4703.0891	4706.6558	4710.5414	4710.4339	0.0		
580	0.0	0.0	0.0	4531.9956	4543.0707	4548.3612	4550.6523	4551.7569	
581	4552.9406	4554.8711	4558.0336	4562.6490	4568.4903	4575.2524	4583.0806	4591.0775	
582	4598.9038	4606.9431	4615.1561	4622.9171	4630.2101	4636.9905	4643.1551	4648.8043	
583	4654.0647	4658.9960	4663.6797	4668.2206	4672.6726	4677.1176	4681.9324	4688.0801	
584	4696.4539	4701.7891	4703.5378	4709.3620	4722.1335	4712.6287	0.0		

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
STARTING HEAD MATRIX - LAYER 4 (CONT)
1952 STEADY-STATE VALUES FOR INITIAL HEADS
(FT)

CARD NUMBER	585	0.0	0.0	0.0	4531.9128	4542.5662	4547.7824	4550.2222	4551.5802
586	4553.0685	4555.2388	4558.7288	4563.7035	4569.8696	4576.8120	4584.8113	4592.5428	
587	4599.6406	4606.8676	4614.3957	4621.8003	4628.8455	4635.5274	4641.6838	4647.2463	
588	4652.3169	4657.0783	4661.6310	4666.0931	4670.6366	4675.7488	4682.3668	4692.5159	
589	4717.0368	4723.2221	4709.8957	4722.4197	4726.1942	4714.2340	0.0		
590	0.0	0.0	0.0	4531.8268	4542.1456	4547.4611	4550.3021	4552.2999	
591	4554.4519	4556.4060	4560.0022	4565.4229	4571.8760	4578.8083	4586.4604	4594.0324	
592	4600.7819	4607.2710	4614.0198	4620.8278	4627.4981	4633.9852	4640.0343	4645.4768	
593	4650.3832	4655.0028	4659.4836	4664.0011	4668.9453	4675.5975	4684.2656	4696.9619	
594	4724.1276	4728.3916	4711.7491	4715.1724	4717.5171	0.0	0.0		
595	0.0	0.0	0.0	4531.7260	4541.7378	4547.2237	4550.5248	4553.5234	
596	4559.5077	4558.7200	4561.7417	4567.6948	4574.3496	4581.2909	4588.4935	4595.4955	
597	4601.8997	4608.0113	4614.0571	4620.1988	4626.4051	4632.5589	4638.3109	4643.5269	
598	4648.2595	4652.7371	4657.2129	4662.0479	4668.0191	4676.7967	4687.8770	4703.7276	
599	4729.7601	4721.2649	4715.0271	4719.6120	0.0	0.0	0.0		
600	0.0	0.0	0.0	4531.5989	4541.2717	4546.9314	4550.4970	4553.9383	
601	4561.0749	4563.0921	4563.3241	4569.1036	4575.9675	4582.9799	4589.8439	4596.5036	
602	4602.7108	4608.6209	4614.3084	4619.8348	4625.5667	4631.2739	4636.5645	4641.4186	
603	4645.9602	4650.3917	4655.0506	4660.7304	4668.9312	4679.3679	4693.5521	4723.0667	
604	4742.4323	4738.5644	0.0	0.0	0.0	0.0	0.0		
605	0.0	0.0	0.0	4531.4244	4540.6920	4546.6480	4550.1962	4553.3507	
606	4559.8122	4559.6439	4563.1830	4569.5029	4576.5303	4583.5697	4590.3442	4596.9233	
607	4603.1281	4608.9338	4614.3945	4619.5983	4624.9448	4630.0848	4634.8226	4639.2032	
608	4643.5615	4648.1738	4653.5841	4661.3384	4670.8251	4682.1708	4696.5153	4717.1386	
609	4746.2480	4742.4939	4745.0941	0.0	0.0	0.0	0.0		
610	0.0	0.0	0.0	4531.1767	4539.9615	4547.2416	4550.5517	4552.0197	
611	4555.1750	4558.3264	4562.9806	4569.2483	4576.1618	4583.3229	4590.2468	4596.7599	
612	4602.9795	4608.7919	4614.2124	4619.3276	4624.3045	4629.0459	4633.4155	4637.3253	
613	4641.6441	4646.8669	4654.1491	4662.9158	4673.1927	4685.8612	4703.8220	4733.2981	
614	4748.5496	4756.6044	4720.0000	0.0	0.0	0.0	0.0		
615	0.0	0.0	0.0	4530.7987	4538.8880	4546.2059	4549.3030	4550.4675	
616	4553.3883	4557.2202	4562.1546	4568.3011	4575.0984	4582.2496	4589.2687	4595.8261	
617	4602.1352	4608.0627	4613.5281	4618.6090	4623.4380	4628.1304	4632.7498	4637.2612	
618	4642.2600	4648.2335	4655.8115	4664.8439	4675.7465	4690.7063	4721.0771	4723.9888	
619	4749.4182	4752.7607	0.0	0.0	0.0	0.0	0.0		
620	0.0	0.0	0.0	4530.1443	4537.3643	4544.5476	4547.3470	4548.6928	
621	4551.8145	4555.8322	4560.7739	4566.7137	4573.3591	4580.3687	4587.5068	4594.2996	
622	4600.6075	4606.6218	4612.1670	4617.2659	4622.1514	4626.9804	4632.0029	4637.2356	
623	4642.9867	4649.6044	4657.4285	4666.6419	4677.9215	4693.3385	4723.8484	4722.3544	
624	4748.7064	4730.0000	0.0	0.0	0.0	0.0	0.0		
625	0.0	0.0	4502.8669	4528.6941	4535.2167	4540.6206	4543.5937	4546.4588	
626	4549.9665	4554.0630	4558.8972	4564.6507	4571.0845	4577.9618	4585.0591	4592.0702	
627	4598.5208	4604.4488	4609.9985	4615.1832	4620.2165	4625.2200	4630.5544	4636.3667	
628	4642.9006	4650.2943	4658.6484	4668.3227	4680.1654	4696.0513	4720.6019	4717.2175	
629	4734.8956	0.0	0.0	0.0	0.0	0.0	0.0		
630	0.0	4485.8043	4504.5758	4526.1191	4532.9138	4538.0118	4541.3724	4544.4413	

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 4 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER												
631	4547.9717	4551.9883	4556.6383	4562.1072	4568.3542	4575.1766	4582.2892	4589.3409				
632	4595.9098	4601.7662	4607.1285	4612.3573	4617.4554	4622.5576	4627.9756	4634.2125				
633	4641.7167	4650.1779	4659.5380	4670.3292	4684.1909	4710.0384	4702.5984	0.0				
634	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
635	0.0	4485.8169	4505.9479	4524.2328	4530.9109	4535.9440	4539.4784	4542.5433				
636	4545.9723	4549.8543	4554.3052	4559.5300	4565.5964	4572.3540	4579.3128	4586.1672				
637	4592.7039	4598.6799	4604.0015	4609.0309	4614.0136	4619.0364	4624.3522	4630.6939				
638	4639.2672	4649.1096	4659.8759	4672.2032	4688.0392	4710.4834	4699.2838	0.0				
639	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
640	0.0	4485.8345	4506.9429	4522.9434	4529.4110	4534.2267	4537.7545	4540.7709				
641	4544.0998	4547.8242	4552.0921	4557.1011	4562.8986	4569.4297	4576.1798	4582.8510				
642	4589.1869	4594.9427	4600.0128	4604.8362	4609.6612	4614.5838	4619.8052	4626.1636				
643	4635.4452	4646.9225	4659.4517	4674.9479	4703.5244	4696.9872	4696.8112	0.0				
644	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
645	0.0	4485.8546	4507.6855	4522.1153	4528.3835	4532.8789	4536.3122	4539.2618				
646	4542.4731	4546.0673	4550.1851	4554.9793	4560.4839	4566.6618	4573.1831	4579.6563				
647	4585.6366	4590.8570	4595.4443	4599.9712	4604.6430	4609.6039	4615.0697	4621.6765				
648	4631.5527	4644.1195	4657.8132	4674.6954	4705.0710	4694.5850	4720.0000	0.0				
649	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
650	0.0	4485.8791	4508.2904	4521.6420	4527.7035	4531.8418	4535.1536	4538.0727				
651	4541.2125	4544.7111	4548.6817	4553.2776	4558.5597	4564.5154	4570.8809	4576.9439				
652	4582.0391	4586.3046	4590.4959	4594.8233	4599.3937	4604.4598	4610.2407	4617.3735				
653	4627.8374	4640.9653	4655.0362	4672.3461	4703.4368	4693.8076	4725.0000	0.0				
654	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
655	0.0	4485.9105	4508.8403	4521.4617	4527.4054	4531.2071	4534.3726	4537.2661				
656	4540.3810	4543.8760	4547.7630	4552.1304	4557.1136	4562.7436	4568.7099	4573.4768				
657	4577.5131	4581.2120	4585.2786	4589.5752	4594.1595	4599.5114	4605.8739	4613.5506				
658	4624.3819	4637.5720	4651.0488	4667.5650	4697.8942	4692.5075	4730.0000	0.0				
659	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
660	0.0	4485.9529	4509.3921	4521.5181	4527.3461	4530.9518	4534.0462	4536.9156				
661	4540.0884	4543.6503	4547.5195	4551.5513	4555.9998	4560.7990	4565.6072	4569.5825				
662	4572.9727	4576.4549	4580.4465	4584.9044	4589.8951	4595.7030	4602.6115	4610.6903				
663	4621.6120	4634.5123	4646.2986	4659.5318	4677.1169	4690.0468	0.0	0.0				
664	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
665	0.0	4486.0144	4509.9897	4521.7835	4527.4900	4531.0445	4534.1802	4537.0858				
666	4540.3656	4544.0680	4548.0648	4551.6103	4555.0867	4558.8636	4562.6818	4566.1477				
667	4569.3330	4572.8346	4577.0151	4581.7936	4587.2491	4593.5528	4600.9145	4609.3061				
668	4620.4480	4632.9518	0.0	0.0	0.0	0.0	0.0	0.0				
669	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
670	0.0	4486.1181	4510.6653	4522.2449	4527.8410	4531.4469	4534.6855	4537.6768				
671	4541.1288	4545.1142	4550.1027	4553.2011	4554.8479	4557.3107	4560.3184	4563.5344				
672	4566.9163	4570.7653	4575.3528	4580.6232	4586.5877	4593.3920	4601.0382	4609.3788				
673	4620.1681	4632.1363	0.0	0.0	0.0	0.0	0.0	0.0				
674	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
675	0.0	4486.3553	4511.4470	4522.9016	4528.4637	4532.1794	4535.4448	4538.4280				
676	4542.0190	4546.2807	4551.0466	4553.8651	4555.7385	4556.5560	4558.9851	4562.1712				

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 4 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER												
677		4565.9042	4570.3304	4575.6180	4581.6706	4588.2672	4595.5039	4603.2645	4611.1379			
678		4620.8916	4631.9738	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
679		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
680		0.0	4487.0923	4512.3569	4523.7647	4529.6070	4533.3247	4536.4277	4539.3003			
681		4543.0343	4548.2221	4551.7294	4554.1629	4555.8499	4556.2848	4558.5605	4561.9003			
682		4566.1222	4571.3514	4577.7496	4584.9820	4592.3016	4599.8483	4607.6665	4614.7635			
683		4622.5956	4632.2878	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
684		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
685		0.0	4487.9265	4513.4044	4524.8433	4531.4739	4535.0153	4537.7845	4540.3419			
686		4543.7896	4548.6598	4551.8032	4554.1004	4555.7854	4556.3920	4558.8289	4562.4885			
687		4567.3897	4573.7467	4581.6973	4590.4977	4598.2781	4605.6601	4613.7300	4620.0065			
688		4625.3670	4632.8896	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
689		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
690		0.0	4488.8596	4514.9019	4526.6662	4535.0579	4537.9374	4540.0162	4542.0133			
691		4544.5347	4547.4824	4550.3281	4552.7069	4554.7154	4556.8854	4559.8921	4564.1408			
692		4569.9955	4577.7966	4587.7863	4599.1629	4606.9357	4613.0103	4618.2535	4622.7022			
693		4626.8691	4633.4881	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
694		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
695		0.0	4489.9049	4517.6525	4534.3970	4544.0570	4545.6427	4546.3665	4547.3340			
696		4548.7528	4550.4925	4552.4861	4554.6843	4556.9833	4559.5521	4563.0538	4567.9712			
697		4574.6282	4583.1420	4593.4101	4604.5250	4611.8234	4617.1573	4621.3890	4624.9145			
698		4628.5933	4634.2480	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
699		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
700		0.0	4491.0672	4522.4893	4557.1723	4580.0000	4564.8652	4561.8472	4560.1900			
701		4559.6275	4560.1534	4561.4422	4563.1548	4565.1819	4567.7169	4571.3850	4576.6369			
702		4583.4476	4591.4358	4600.4753	4607.6532	4613.7083	4618.9690	4623.7190	4628.1618			
703		4632.4222	4635.3290	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
704		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
705		0.0	0.0	4580.0000	0.0	0.0	0.0	4670.0000	4576.9679			
706		4577.0294	4577.3433	4577.9380	4578.8825	4580.3541	4582.7200	4586.4438	4590.1163			
707		4594.3253	4597.6691	4600.6860	4603.9828	4608.1486	4611.8577	4615.8313	4618.8303			
708		4621.1954	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
709		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
710		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
711		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
712		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
713		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
714		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 5
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER		1	1	1					
715									
716	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
717	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
718	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
719	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
720	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
721	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
722	0.0	4565.0000	4570.0000	4585.0000	4600.0000	4600.0000	4600.0000	4600.0000	4600.0000
723	4610.0000	4620.0000	0.0	0.0	0.0	4775.0000	4800.0000	4850.0000	
724	4900.0000	5000.0000	5020.0000	0.0	0.0	0.0	0.0	0.0	0.0
725	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
726	0.0	0.0	0.0	0.0	0.0	4555.0652	4559.9175	4560.0066	
727	4569.6244	4569.8432	4574.7649	4579.7451	4579.9108	4579.9661	4580.0144	4580.3141	
728	4589.7688	4590.1182	4591.1179	4619.4716	4630.5061	4650.2039	4669.6279	4679.6922	
729	4681.1340	4699.6340	4710.0522	4719.8284	4725.1080	4730.3809	4740.0680	4750.0423	
730	4759.6377	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
731	0.0	0.0	0.0	0.0	4545.4965	4558.9570	4566.8174	4568.1155	
732	4568.8452	4569.3959	4569.9120	4570.1896	4571.3097	4573.8915	4578.3209	4584.6585	
733	4592.4838	4602.3808	4612.3104	4622.9284	4633.4080	4643.7456	4653.2493	4661.3483	
734	4668.5379	4675.6539	4682.0179	4687.6720	4693.1535	4698.6507	4704.3530	4710.4735	
735	4717.4794	4729.4006	0.0	0.0	0.0	0.0	0.0	0.0	
736	0.0	0.0	0.0	4530.2125	4547.0608	4557.8412	4565.6271	4566.7875	
737	4567.1089	4566.8232	4563.4922	4563.6689	4566.4500	4571.6428	4577.6713	4585.1097	
738	4593.8261	4603.2027	4613.0345	4622.4780	4632.8341	4642.2476	4649.1716	4655.8123	
739	4662.4014	4669.0199	4674.8544	4679.9001	4684.5774	4688.8276	4692.6118	4695.8595	
740	4699.1113	4703.0861	4708.6442	0.0	0.0	0.0	0.0	0.0	
741	0.0	0.0	0.0	4530.1835	4545.3640	4553.0042	4557.2826	4558.6979	
742	4558.4930	4558.0214	4558.2773	4560.2357	4564.4479	4570.8292	4578.0014	4586.5688	
743	4596.6842	4606.2779	4615.7457	4624.6125	4633.1742	4640.9295	4647.5647	4653.6756	
744	4659.5627	4665.2474	4670.6354	4675.6324	4680.4347	4684.4968	4688.1382	4691.1966	
745	4693.5360	4695.2309	4697.0565	4697.0446	4698.1800	0.0	0.0		
746	0.0	0.0	0.0	4530.1671	4544.1681	4550.3847	4553.1196	4553.8296	
747	4553.2189	4553.4569	4555.2383	4558.7562	4563.7554	4570.5194	4578.3414	4587.1196	
748	4597.1172	4606.6753	4615.9756	4624.5156	4632.5719	4639.8913	4646.2863	4652.2193	
749	4657.8603	4663.1456	4668.1497	4672.9843	4677.4807	4681.4089	4684.9011	4688.1452	
750	4691.3120	4694.8898	4697.7583	4700.0222	4702.9174	4709.7040	0.0		
751	0.0	0.0	0.0	4530.1575	4543.3357	4548.7989	4550.8109	4550.8963	
752	4550.6837	4551.5542	4553.8732	4558.0304	4563.8073	4570.5179	4578.8338	4587.7148	
753	4596.7033	4606.2528	4615.4963	4623.8630	4631.6810	4638.8002	4645.0519	4650.8307	
754	4656.2854	4661.3496	4666.1241	4670.7841	4675.1944	4679.0327	4682.5315	4686.0245	
755	4690.6962	4695.1038	4698.5972	4701.9010	4705.8800	4711.8964	0.0		
756	0.0	0.0	0.0	4530.1530	4542.6713	4547.7393	4549.4696	4549.5135	
757	4549.7695	4550.9970	4553.7661	4558.4723	4564.6204	4571.5320	4580.1749	4588.7743	
758	4596.8007	4605.3329	4614.4866	4622.7105	4630.3575	4637.4037	4643.6214	4649.2525	
759	4654.4946	4659.3372	4663.8864	4668.2865	4672.5488	4676.5178	4680.3623	4685.5906	
760	4691.8698	4697.1990	4700.9471	4704.7977	4709.0931	4711.8182	0.0		

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 5 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER											
761	0.0	0.0	0.0	4530.1506	4542.1609	4547.1486	4549.0979	4549.4210			
762	4549.9342	4551.5182	4554.7709	4559.8795	4566.4694	4573.6034	4582.8770	4591.0698			
763	4597.7885	4605.0923	4613.1679	4621.1195	4628.5128	4635.5584	4641.9562	4647.5554			
764	4652.5035	4657.1195	4661.4643	4665.6464	4669.7038	4674.0342	4680.0783	4687.6670			
765	4696.0010	4701.3145	4703.9677	4709.2415	4713.3828	4712.8371	0.0				
766	0.0	0.0	0.0	4530.1511	4541.7518	4546.8570	4549.3193	4550.5779			
767	4551.0765	4552.7131	4556.2788	4562.1707	4569.1903	4576.2260	4584.6327	4593.0285			
768	4599.5823	4605.6895	4612.6129	4619.7514	4626.7182	4633.6206	4640.0055	4645.5274			
769	4650.2595	4654.6760	4658.8709	4662.9099	4666.9146	4673.5225	4682.0279	4692.0329			
770	4701.5221	4706.3825	4705.8750	4714.6332	4719.1974	0.0	0.0				
771	0.0	0.0	0.0	4530.1513	4541.3707	4546.6548	4549.5841	4551.5515			
772	4552.8730	4554.3628	4558.2855	4565.8516	4573.0091	4580.1592	4587.7448	4594.9709			
773	4601.1535	4607.0123	4612.7915	4618.9893	4625.3945	4631.9296	4637.9435	4643.2178			
774	4647.7434	4651.8672	4655.8731	4659.9608	4664.7659	4674.8178	4685.9556	4697.8356			
775	4709.6297	4716.2818	4715.9763	4729.0029	0.0	0.0	0.0				
776	0.0	0.0	0.0	4530.1488	4540.9403	4546.3687	4549.5662	4551.9452			
777	4553.9817	4556.0812	4559.9398	4567.5818	4575.2438	4582.6846	4589.5900	4596.2918			
778	4602.2794	4608.0004	4613.4937	4618.6449	4624.4733	4630.4882	4635.8481	4640.6212			
779	4644.8948	4648.8330	4652.6567	4657.1326	4666.5250	4677.8238	4690.4960	4705.4460			
780	4724.3329	4754.2570	0.0	0.0	0.0	0.0	0.0				
781	0.0	0.0	0.0	4530.1438	4540.3916	4545.9033	4549.0731	4551.4136			
782	4553.3794	4555.7900	4560.3623	4568.2197	4576.0916	4583.4876	4590.2384	4596.9187			
783	4603.0545	4608.6666	4613.8487	4618.6013	4624.0371	4629.1256	4633.6294	4637.6412			
784	4641.5616	4645.5107	4649.6768	4658.6958	4669.2755	4681.2660	4694.7711	4710.9333			
785	4729.5954	4747.2062	4757.9040	0.0	0.0	0.0	0.0				
786	0.0	0.0	0.0	4530.1314	4539.6652	4545.1956	4548.3246	4550.4459			
787	4552.8111	4556.1632	4561.1481	4568.1925	4575.6334	4583.3607	4590.5443	4596.9880			
788	4603.1725	4608.7928	4613.9618	4618.7920	4623.5557	4628.0203	4631.8963	4634.5638			
789	4638.0469	4642.5953	4651.2424	4661.0780	4672.1011	4684.6950	4699.3247	4716.2938			
790	4734.3439	4751.1988	4757.3446	0.0	0.0	0.0	0.0				
791	0.0	0.0	0.0	4530.1132	4538.6615	4543.8871	4546.8003	4548.7963			
792	4551.6222	4555.4892	4560.5844	4567.2890	4574.5379	4582.2635	4589.6076	4596.0358			
793	4602.4390	4608.3109	4613.5468	4618.3381	4622.8144	4627.1755	4631.5071	4635.4399			
794	4640.0445	4645.8419	4653.9376	4663.5686	4674.7832	4687.8796	4703.3349	4719.2867			
795	4741.7237	4766.9474	0.0	0.0	0.0	0.0	0.0				
796	0.0	0.0	0.0	4530.0882	4537.1961	4543.0477	4545.1253	4547.1508			
797	4550.2817	4554.2764	4559.3082	4565.5710	4572.6515	4580.0307	4587.7205	4594.7244			
798	4600.8788	4606.9767	4612.3882	4617.1311	4621.6780	4626.1649	4631.0597	4636.0878			
799	4641.6517	4648.2129	4656.2271	4665.7202	4677.2236	4690.2549	4705.1147	4719.5988			
800	4748.1216	4785.8628	0.0	0.0	0.0	0.0	0.0				
801	0.0	0.0	4500.1207	4529.9801	4534.8822	4539.7737	4541.9209	4545.0635			
802	4548.5753	4552.5782	4557.3935	4563.4351	4570.1692	4577.3583	4584.8433	4592.3992			
803	4598.9238	4604.7088	4610.1773	4615.0619	4619.8626	4624.5280	4629.7843	4635.5188			
804	4641.9963	4649.4533	4657.8418	4667.5745	4679.2903	4691.6893	4702.9405	4711.9870			
805	4747.1662	0.0	0.0	0.0	0.0	0.0	0.0				
806	0.0	4485.0154	4503.6701	4526.2362	4532.2872	4537.1649	4540.2193	4543.1933			

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
STARTING HEAD MATRIX - LAYER 5 (CONT)
1952 STEADY-STATE VALUES FOR INITIAL HEADS
(FT)

CARD NUMBER	807	4546.6298	4550.4936	4555.0227	4560.5261	4566.9957	4574.2126	4581.8594	4589.5043
808	4596.4039	4602.0358	4606.9927	4612.1258	4617.0121	4621.8186	4626.9411	4633.1099	
809	4640.9472	4649.6780	4659.1543	4669.9324	4681.8651	4693.2306	4697.9889	0.0	
810	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
811	0.0	4485.0157	4505.5005	4524.1563	4530.0833	4535.0457	4538.4514	4541.3522	
812	4544.6137	4548.3455	4552.6196	4557.8087	4564.1011	4571.3880	4578.7706	4585.9909	
813	4592.9123	4599.1252	4604.2366	4608.9367	4613.6500	4618.2859	4623.0052	4628.7498	
814	4638.3039	4648.7777	4659.8181	4671.7045	4683.9948	4694.2335	4698.4530	0.0	
815	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
816	0.0	4485.0157	4506.6958	4522.8000	4528.5644	4533.2281	4536.6689	4539.5279	
817	4542.7120	4546.2412	4550.3316	4555.3267	4561.2738	4568.3333	4575.4826	4582.5339	
818	4589.2359	4595.2196	4600.0391	4604.5587	4609.0667	4613.5160	4617.8492	4623.0835	
819	4633.1691	4646.2527	4659.1756	4672.9028	4687.4590	4694.3360	4699.6246	0.0	
820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
821	0.0	4485.0159	4507.5362	4521.9535	4527.6192	4531.8411	4535.1895	4537.9949	
822	4541.0171	4544.4286	4548.4114	4553.1973	4558.7991	4565.2887	4572.2411	4579.2879	
823	4585.7801	4591.0805	4595.1357	4599.2522	4603.5402	4608.0580	4612.8635	4618.1428	
824	4628.7377	4643.2214	4657.4435	4672.3322	4687.6350	4694.0794	4699.2537	0.0	
825	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
826	0.0	4485.0166	4508.1916	4521.4764	4526.9615	4530.6974	4533.9187	4536.7776	
827	4539.7315	4543.0455	4546.8682	4551.4752	4556.9321	4563.3182	4570.4590	4577.4724	
828	4582.5653	4586.0542	4589.7372	4593.6435	4597.7331	4602.3216	4607.4118	4613.5012	
829	4624.9079	4640.0367	4654.5320	4669.8413	4686.2536	4694.9481	4704.0481	0.0	
830	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
831	0.0	4485.0181	4508.7675	4521.3034	4526.7924	4530.0341	4533.0316	4535.9194	
832	4538.8489	4542.2523	4546.0468	4550.4361	4555.6536	4561.9274	4569.2686	4573.5735	
833	4576.9991	4579.8634	4583.6874	4587.5828	4591.4684	4596.4129	4602.5340	4609.4704	
834	4621.4467	4636.6875	4649.9943	4664.5755	4682.3186	4695.9713	4708.9964	0.0	
835	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
836	0.0	4485.0191	4509.3332	4521.3591	4526.7786	4529.7782	4532.6812	4535.5156	
837	4538.5844	4542.1496	4546.0435	4550.0422	4554.8022	4559.9903	4565.2143	4568.7903	
838	4571.3129	4574.1290	4577.7374	4581.8542	4586.4962	4592.0694	4599.0627	4606.6689	
839	4618.8166	4634.2193	4642.6809	4653.5750	4672.2397	4699.7023	0.0	0.0	
840	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
841	0.0	4485.0200	4509.9356	4521.6128	4526.9046	4529.8676	4532.8863	4535.7499	
842	4538.9867	4542.7521	4546.8118	4550.1129	4553.7046	4557.6903	4561.5312	4564.6186	
843	4566.9833	4569.8241	4573.7021	4578.2012	4583.4807	4589.7478	4597.4672	4605.7713	
844	4619.2451	4640.3987	0.0	0.0	0.0	0.0	0.0	0.0	
845	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
846	0.0	4485.0224	4510.6125	4522.0464	4527.1697	4530.2356	4533.4766	4536.4938	
847	4540.0030	4543.9660	4548.0639	4550.7774	4553.1269	4555.5187	4558.3470	4561.2332	
848	4564.1142	4567.4704	4571.7887	4576.8518	4582.7343	4589.7744	4597.9802	4606.3824	
849	4619.6919	4640.3705	0.0	0.0	0.0	0.0	0.0	0.0	
850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
851	0.0	4485.0376	4511.3918	4522.6503	4527.6061	4530.9258	4534.2776	4537.2268	
852	4540.9249	4545.2731	4548.8486	4551.1407	4552.8350	4554.3292	4556.5996	4559.5592	

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 5 (CONT)
 1952 STEADY-STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER											
853	4562.9486	4567.0416	4572.1590	4578.2204	4584.9080	4592.5931	4601.0782	4608.9468			
854	4620.8574	4640.2943	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
855	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
856	0.0	4486.0239	4512.3012	4523.4198	4528.6575	4532.0481	4535.1617	4537.9365			
857	4541.8241	4546.4051	4549.3550	4551.3357	4552.7569	4553.9147	4556.0195	4559.1493			
858	4563.1013	4568.1084	4574.6556	4582.4036	4590.1230	4598.3017	4607.0864	4614.0870			
859	4622.7306	4640.1899	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
860	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
861	0.0	4487.0194	4513.3480	4524.2675	4530.5526	4533.7784	4536.4942	4538.8441			
862	4542.4553	4546.6828	4549.4336	4551.3473	4552.7408	4553.9781	4556.2000	4559.6149			
863	4564.3751	4570.8853	4579.6856	4589.8457	4597.9993	4605.7058	4613.5854	4620.1758			
864	4623.9210	4639.9874	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
865	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
866	0.0	4488.0176	4514.8440	4525.2055	4534.5400	4536.6279	4538.4128	4540.2451			
867	4542.7758	4545.7978	4548.9219	4551.1917	4552.7209	4554.5757	4557.2269	4561.2753			
868	4567.2486	4575.7099	4587.5556	4600.0717	4607.4847	4613.0445	4617.7831	4621.7262			
869	4624.6864	4639.9684	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
870	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
871	0.0	4489.0184	4517.6282	4533.8183	4546.7848	4545.1553	4545.2064	4545.9512			
872	4547.2973	4548.9223	4550.8182	4552.9849	4555.0955	4557.1824	4560.3663	4565.2291			
873	4572.2298	4581.5672	4593.4388	4605.0532	4611.8960	4616.7280	4620.5115	4623.3843			
874	4626.3764	4639.9859	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
875	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
876	0.0	4490.1962	4522.7124	4563.2311	4580.0000	4568.3124	4562.9593	4559.7126			
877	4558.6141	4559.0568	4560.4121	4562.0887	4563.8817	4565.9542	4569.3681	4574.8904			
878	4582.4123	4591.2339	4599.4370	4606.6204	4612.7209	4618.0238	4622.8941	4627.6528			
879	4632.9957	4639.6765	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
880	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
881	0.0	0.0	4577.1655	0.0	0.0	0.0	4578.5937	4578.0021			
882	4577.8867	4578.0658	4578.4780	4579.1675	4580.3160	4582.4297	4587.0179	4590.4772			
883	4595.4533	4598.3451	4600.7438	4603.5749	4608.4753	4611.9332	4616.7763	4619.8330			
884	4623.2953	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
885	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
886	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
887	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
888	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
889	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
890	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 6
 1952 STEADY STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER		1	1	1					
891									
892		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
893		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
894		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
895		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
896		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
897		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
898		0.0	4565.0000	4570.0000	4585.0000	4600.0000	4600.0000	4600.0000	4600.0000
899		4610.0000	4620.0000	0.0	0.0	0.0	4775.0000	4800.0000	4850.0000
900		4900.0000	5000.0000	5020.0000	0.0	0.0	0.0	0.0	0.0
901		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
902		0.0	0.0	0.0	0.0	0.0	4555.0190	4559.9581	4559.8656
903		4569.7533	4569.7530	4574.7696	4579.8549	4579.9276	4579.9723	4580.0004	4580.0207
904		4590.0370	4590.0507	4590.0642	4620.0770	4630.0958	4650.1140	4670.1313	4680.1500
905		4680.1715	4700.1852	4710.2006	4720.2127	4725.2246	4730.2337	4740.2403	4750.2428
906		4760.2440	0.0	0.0	0.0	0.0	0.0	0.0	0.0
907		0.0	0.0	0.0	0.0	4545.3980	4559.1114	4567.7217	4568.0842
908		4568.5518	4569.0165	4569.5409	4569.6413	4570.4310	4572.6611	4576.8479	4583.1819
909		4591.1095	4601.8675	4611.6599	4623.0366	4633.6077	4643.7419	4653.1730	4661.2960
910		4668.5224	4675.6165	4681.9895	4687.7157	4693.2146	4698.7254	4704.4765	4710.7374
911		4718.3514	4730.6668	0.0	0.0	0.0	0.0	0.0	0.0
912		0.0	0.0	0.0	4530.1538	4547.0295	4558.0245	4566.8582	4567.0960
913		4567.2725	4567.3201	4562.4597	4562.2942	4564.9499	4570.2954	4576.0216	4583.4683
914		4592.2175	4601.7818	4611.6438	4621.9683	4632.7649	4642.0410	4649.1774	4655.8720
915		4662.4602	4668.9751	4674.7960	4679.8943	4684.5872	4688.8584	4692.6855	4696.0723
916		4699.5052	4703.7353	4710.4602	0.0	0.0	0.0	0.0	0.0
917		0.0	0.0	0.0	4530.1302	4545.3283	4553.0060	4557.4980	4558.8495
918		4558.2586	4557.3720	4557.3212	4558.7049	4562.9279	4569.4032	4576.3501	4585.0262
919		4596.5235	4606.2075	4615.6348	4624.5326	4633.0829	4640.8261	4647.5146	4653.6662
920		4659.5704	4665.2536	4670.6264	4675.6275	4680.3494	4684.4287	4688.0233	4690.9397
921		4692.5091	4689.0000	4692.0000	4692.0000	4698.0000	0.0	0.0	0.0
922		0.0	0.0	0.0	4530.1163	4544.1332	4550.3652	4553.0900	4553.6732
923		4552.3674	4552.3296	4553.9739	4557.2527	4562.2546	4568.9030	4576.8218	4585.5783
924		4596.9119	4606.6228	4615.8953	4624.4485	4632.4856	4639.7919	4646.2280	4652.1774
925		4657.8147	4663.1153	4668.1357	4672.9463	4677.4148	4681.3180	4684.6261	4686.8452
926		4685.0000	4693.7070	4697.1889	4699.6527	4703.2693	4709.9256	0.0	0.0
927		0.0	0.0	0.0	4530.1085	4543.3007	4548.7719	4550.7427	4550.3640
928		4549.7285	4550.4667	4552.6656	4556.5980	4562.2783	4568.9512	4577.1882	4586.0440
929		4595.2356	4606.0595	4615.3991	4623.7913	4631.5935	4638.7008	4644.9911	4650.7855
930		4656.2305	4661.3046	4666.0956	4670.7226	4675.0479	4678.6916	4681.0779	4679.0000
931		4689.5943	4695.0069	4698.7067	4702.1255	4706.2322	4712.2046	0.0	0.0
932		0.0	0.0	0.0	4530.1066	4542.6367	4547.7091	4549.3422	4548.9038
933		4548.9185	4549.9383	4552.5718	4557.1450	4563.0679	4569.9379	4578.5972	4587.1690
934		4595.1931	4603.8940	4614.2320	4622.5872	4630.2386	4637.2952	4643.5473	4649.2031
935		4654.4391	4659.2900	4663.8524	4668.2132	4672.2049	4674.8855	4672.0000	4684.5527
936		4691.8771	4697.2229	4701.0052	4705.0505	4709.1114	4711.8865	0.0	0.0

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
STARTING HEAD MATRIX - LAYER 6 (CONT)
1952 STEADY STATE VALUES FOR INITIAL HEADS
(FT)

CARD NUMBER	0.0	0.0	0.0	4530.1067	4542.1264	4547.1210	4549.0250	4548.8349
937	0.0	0.0	0.0	4530.1067	4542.1264	4547.1210	4549.0250	4548.8349
938	4549.0882	4550.5299	4553.7427	4558.5959	4565.0702	4572.1047	4582.5702	4590.7873
939	4596.3060	4603.5065	4611.6533	4620.4184	4628.0189	4635.4626	4641.8599	4647.4638
940	4652.4458	4657.0697	4661.4050	4665.3965	4668.1128	4665.0000	4678.9372	4687.8048
941	4695.8207	4700.8800	4703.1619	4709.1642	4713.1193	4712.8209	0.0	
942	0.0	0.0	0.0	4530.1097	4541.7192	4546.8298	4549.2743	4550.4588
943	4550.2349	4551.7209	4555.2088	4560.9380	4567.9585	4574.8548	4583.2381	4592.8410
944	4599.3605	4604.2313	4610.9742	4618.1414	4625.4252	4633.5028	4639.9164	4645.4272
945	4650.1985	4654.6076	4658.7031	4661.8905	4658.0000	4672.2676	4682.2410	4692.2264
946	4701.1313	4704.4125	4696.4332	4714.4751	4719.5553	0.0	0.0	
947	0.0	0.0	0.0	4530.1105	4541.3398	4546.6309	4549.5431	4551.4368
948	4551.8901	4553.2437	4557.1816	4565.6495	4572.8948	4580.0579	4587.5947	4594.8651
949	4601.0860	4606.7949	4611.2967	4617.3199	4623.8501	4631.7894	4637.8654	4643.1173
950	4647.6621	4651.7764	4655.4854	4657.6756	4651.0000	4673.9321	4686.2006	4698.1693
951	4709.0815	4707.1534	4708.0000	4730.1976	0.0	0.0	0.0	
952	0.0	0.0	0.0	4530.1119	4540.9111	4546.3455	4549.5238	4551.8321
953	4553.1117	4554.9911	4558.9693	4567.5157	4575.1810	4582.5744	4589.5123	4596.2072
954	4602.2347	4607.9349	4613.2292	4617.0859	4622.9987	4630.3086	4635.7272	4640.4850
955	4644.7231	4648.4563	4650.5916	4644.0000	4664.6445	4677.9265	4690.9793	4706.0819
956	4725.4083	4758.1721	0.0	0.0	0.0	0.0	0.0	
957	0.0	0.0	0.0	4530.1104	4540.3636	4545.8678	4548.9650	4551.2342
958	4552.2605	4554.6973	4559.2995	4568.1221	4576.0123	4583.3937	4590.1881	4596.8259
959	4602.9459	4608.5596	4613.6553	4617.1661	4623.6554	4628.7618	4632.9732	4637.0147
960	4640.6558	4643.4947	4637.0000	4656.8954	4669.2393	4681.6284	4695.4016	4711.5759
961	4730.0216	4748.4648	4758.4915	0.0	0.0	0.0	0.0	
962	0.0	0.0	0.0	4530.1026	4539.6383	4545.0143	4546.6354	4548.6138
963	4548.3700	4551.6880	4557.0097	4567.3030	4575.3834	4582.9205	4589.9425	4596.4897
964	4602.6440	4608.3430	4613.5245	4617.8645	4621.7328	4624.5115	4624.0000	4628.0000
965	4629.0000	4630.0000	4649.5369	4661.0203	4672.3937	4685.1365	4699.8124	4716.6111
966	4734.9518	4751.8119	4757.4946	0.0	0.0	0.0	0.0	
967	0.0	0.0	0.0	4530.0906	4538.6673	4543.4840	4543.5571	4544.7015
968	4547.2813	4551.5482	4556.5674	4566.1131	4574.1679	4581.7720	4588.9574	4595.6031
969	4601.9348	4607.9508	4613.6401	4618.0000	4619.0000	4620.0000	4627.9566	4634.6492
970	4639.3036	4644.9755	4653.9133	4663.8089	4675.1493	4688.2679	4703.4336	4720.0238
971	4742.6200	4767.7183	0.0	0.0	0.0	0.0	0.0	
972	0.0	0.0	0.0	4530.0781	4537.2215	4543.3723	4543.4672	4543.5518
973	4546.9791	4550.8489	4555.9690	4563.0714	4572.0213	4579.7123	4587.1714	4594.1361
974	4600.6579	4607.2388	4615.0000	4617.0000	4620.0494	4623.7489	4629.3690	4635.8364
975	4641.5730	4648.2173	4656.3949	4666.0485	4677.5391	4690.4642	4704.6252	4719.3122
976	4749.3216	4787.3713	0.0	0.0	0.0	0.0	0.0	
977	0.0	0.0	4500.0134	4530.0660	4534.8716	4539.6237	4541.1636	4541.8305
978	4545.9069	4549.4791	4553.6930	4561.6231	4569.0973	4576.6935	4584.5660	4591.9298
979	4598.6830	4605.1978	4612.0000	4614.7765	4618.7503	4623.0418	4628.1183	4635.2772
980	4641.9645	4649.5050	4658.0554	4667.9646	4679.5403	4691.4652	4701.0073	4697.7625
981	4748.6719	0.0	0.0	0.0	0.0	0.0	0.0	
982	0.0	4484.9984	4503.5915	4526.2605	4530.2876	4535.1517	4537.5784	4540.3581

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 6 (CONT)
 1952 STEADY STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER												
983	4543.8797	4547.0866	4550.8596	4556.0545	4563.1062	4571.4175	4581.3611	4589.1811				
984	4596.2255	4603.0000	4603.0000	4610.9144	4615.9037	4619.9732	4622.9048	4632.6943				
985	4640.8883	4649.7137	4659.3226	4670.1204	4681.8134	4692.4955	4697.8796	0.0				
986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
987	0.0	4484.9971	4505.4703	4524.1389	4527.2126	4533.0078	4536.5244	4538.8096				
988	4541.4519	4544.9414	4548.1929	4552.8175	4559.9299	4570.0661	4578.5051	4586.1223				
989	4593.2946	4600.0000	4603.3088	4608.2281	4612.6665	4616.0953	4616.8186	4627.2384				
990	4638.1646	4648.8181	4659.9011	4671.7416	4683.7561	4693.4929	4698.5413	0.0				
991	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
992	0.0	4484.9967	4506.6764	4522.7798	4525.9239	4530.6114	4534.2405	4536.4990				
993	4539.5583	4542.2784	4545.3868	4550.2980	4556.2264	4566.4089	4574.4572	4582.2659				
994	4590.1532	4598.0000	4600.0216	4603.8732	4607.8974	4611.1780	4610.7988	4621.4263				
995	4631.9753	4646.1508	4659.1464	4672.7688	4686.8223	4694.2134	4699.7862	0.0				
996	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
997	0.0	4484.9965	4507.5207	4521.9363	4525.7369	4529.2916	4532.8276	4535.0748				
998	4537.3441	4540.1296	4543.5902	4548.2944	4553.5974	4560.5275	4568.1428	4577.2398				
999	4587.5981	4595.0000	4595.3769	4598.3328	4601.8747	4605.5834	4609.3270	4616.6429				
1000	4627.5404	4643.1463	4657.4653	4672.1896	4686.5414	4694.0002	4699.2516	0.0				
1001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
1002	0.0	4484.9968	4508.1775	4521.4593	4524.9206	4527.4085	4530.8233	4533.9335				
1003	4536.0777	4538.5397	4541.4414	4546.0244	4551.7905	4559.1696	4569.0084	4585.0000				
1004	4590.0000	4587.2788	4589.2431	4592.2154	4595.0222	4598.3650	4600.2701	4611.8957				
1005	4623.7588	4640.0210	4654.5791	4669.7034	4685.1784	4695.0158	4704.1947	0.0				
1006	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
1007	0.0	4484.9969	4508.7553	4521.2908	4525.7169	4526.7300	4529.1600	4532.9296				
1008	4534.5656	4537.8431	4540.9286	4545.2604	4550.8323	4559.7470	4580.0000	4576.6645				
1009	4577.3174	4575.3457	4580.8599	4583.8573	4583.2465	4586.8860	4593.4923	4607.7747				
1010	4620.2968	4636.6389	4649.8260	4664.1447	4681.1601	4696.2844	4709.2929	0.0				
1011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
1012	0.0	4484.9982	4509.3213	4521.3468	4525.8733	4526.5104	4528.7114	4531.8076				
1013	4534.2234	4538.0076	4542.2024	4545.5680	4552.5732	4559.2346	4566.7093	4568.2569				
1014	4565.9097	4566.6968	4569.3571	4572.6376	4576.2397	4580.5142	4589.2406	4604.9537				
1015	4617.8344	4634.2723	4640.8573	4650.2896	4669.1296	4700.2092	0.0	0.0				
1016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
1017	0.0	4484.9973	4509.9236	4521.6000	4525.9561	4526.5815	4529.4123	4532.1300				
1018	4534.8648	4539.1169	4545.2473	4546.2246	4549.9542	4555.8228	4560.1080	4562.0582				
1019	4559.9859	4560.0117	4563.8177	4567.3053	4572.0138	4577.3259	4587.4763	4604.0958				
1020	4618.4801	4640.8682	0.0	0.0	0.0	0.0	0.0	0.0				
1021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
1022	0.0	4484.9972	4510.5992	4522.0305	4525.9445	4526.6864	4530.4744	4533.7863				
1023	4537.5867	4541.7285	4547.8532	4547.9683	4549.8021	4550.2593	4552.6877	4554.6989				
1024	4555.9894	4557.3714	4561.0261	4564.9058	4569.7621	4577.3930	4588.4652	4604.7635				
1025	4618.9645	4640.7779	0.0	0.0	0.0	0.0	0.0	0.0				
1026	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
1027	0.0	4484.9987	4511.3795	4522.6272	4525.1936	4527.1752	4531.8172	4534.0784				
1028	4538.1038	4545.2190	4547.8961	4548.0136	4548.1188	4548.1470	4549.6690	4552.5378				

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STARTING HEAD MATRIX - LAYER 6 (CONT)
 1952 STEADY STATE VALUES FOR INITIAL HEADS
 (FT)

CARD NUMBER	4554.8312	4557.5682	4561.4924	4566.9553	4572.8042	4581.7961	4593.7740	4607.4966
1029	4620.1340	4640.6872	0.0	0.0	0.0	0.0	0.0	0.0
1030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1031	0.0	4486.0000	4512.2872	4523.3894	4525.7648	4528.2251	4531.8990	4533.5513
1032	4539.1564	4547.5996	4547.8401	4548.0054	4548.0961	4547.7133	4548.9494	4551.9001
1033	4554.6252	4557.4921	4563.4727	4572.8957	4581.4444	4592.0033	4608.3294	4613.5507
1034	4621.9830	4640.5496	0.0	0.0	0.0	0.0	0.0	0.0
1035	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1036	0.0	4487.0000	4513.3337	4524.2087	4527.2960	4530.3703	4533.7819	4533.9704
1037	4539.8983	4547.5821	4547.8120	4547.9922	4548.0802	4547.7477	4548.9107	4551.3200
1038	4554.9110	4560.6771	4572.0906	4590.9275	4598.7872	4608.0589	4620.7465	4621.4861
1039	4622.2700	4640.3123	0.0	0.0	0.0	0.0	0.0	0.0
1040	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1041	0.0	4487.9987	4514.8291	4524.5016	4531.6280	4531.6569	4532.8351	4534.1024
1042	4536.7257	4540.2723	4546.4925	4548.7749	4547.5332	4548.5099	4549.6691	4552.5932
1043	4558.2999	4567.5455	4589.5871	4616.1733	4617.2740	4618.8029	4620.4649	4621.7713
1044	4622.7590	4640.2756	0.0	0.0	0.0	0.0	0.0	0.0
1045	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1046	0.0	4488.9967	4517.6187	4533.4316	4560.0673	4542.0404	4541.2584	4542.1917
1047	4543.2930	4544.5081	4545.9068	4548.6528	4550.7189	4550.2689	4552.1170	4556.2839
1048	4563.7763	4574.5898	4594.6623	4615.4068	4616.8842	4618.8984	4621.0619	4623.0714
1049	4624.5980	4640.2592	0.0	0.0	0.0	0.0	0.0	0.0
1050	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1051	0.0	4489.9963	4522.2942	4580.0093	4580.0000	4580.0992	4564.7625	4557.2483
1052	4555.0369	4555.8443	4558.2812	4560.2439	4561.3897	4560.9470	4562.6091	4569.0485
1053	4579.1998	4593.0000	4600.3999	4607.3130	4612.9880	4617.9971	4622.7189	4627.6186
1054	4633.2905	4639.8349	0.0	0.0	0.0	0.0	0.0	0.0
1055	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1056	0.0	4579.9962	0.0	0.0	0.0	0.0	0.0	0.0
1057	0.0	0.0	4579.9962	0.0	0.0	0.0	4580.0638	4580.0756
1058	4580.0881	4580.1014	4580.1191	4580.1451	4580.1756	4580.2191	4590.2560	4590.3181
1059	4600.3568	4600.4090	4600.4513	4600.4537	4610.3568	4610.1570	4619.9003	4619.9003
1060	4629.9048	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1061	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1062	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1063	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1064	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1065	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1066	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
STORAGE COEFFICIENT - LAYER 1
(DIMENSIONLESS)

CARD
NUMBER
1067 | .000064

1

|

GROUP III. ARRAY DATA (CONT)
STORAGE COEFFICIENT - LAYER 2
(DIMENSIONLESS)

1068 | .000064

1

|

GROUP III. ARRAY DATA (CONT)
STORAGE COEFFICIENT - LAYER 3
(DIMENSIONLESS)

1069 | .00137

1

|

GROUP III. ARRAY DATA (CONT)
STORAGE COEFFICIENT - LAYER 4
(DIMENSIONLESS)

1070 | .00091

1

|

GROUP III. ARRAY DATA (CONT)
STORAGE COEFFICIENT - LAYER 5
(DIMENSIONLESS)

1071 | .001

1

|

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
STORAGE COEFFICIENT - LAYER 6
(DIMENSIONLESS)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 STORAGE COEFFICIENT - LAYER 6 (CONT)
 (DIMENSIONLESS)

CARD NUMBER	1	1	1	1	1	1	1	1	1	1	1	1	1	-1	1	1	1	1	1	1
1119																				
1120	1	1	1	1	1	1	1	1	1	1	1	1	1							
1121		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1122	1	1	1	1	1	1	1	1	1	1	1	1	1							
1123		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1124	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1125		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1126	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1127		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1128	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1129		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1130	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1131		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1132	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1133		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1134	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1135		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1136	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1137		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-1	1
1138	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1139								1	1	1	1	1	1	1	1	1	1	1	1	1
1140	1	1	1	1	1															
1141																				
1142																				

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TRANSMISSIVITY - LAYER 1
(FT²/S)

CARD NUMBER																	
1143	0.00088194				1		1		1		1		1		1		
1144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1150	0	0	0	0	15	15	15	15	15	15	15	15	25	25	25	25	30
1151	40	40	50	50	50	50	50	50	40	40	40	40	30	0	0	0	0
1152	0	0	0	10	15	15	15	15	25	25	25	30	30	40	40	50	50
1153	60	60	60	60	60	60	60	60	60	60	60	60	50	0	0	0	0
1154	0	0	0	10	15	15	15	25	25	25	30	30	40	40	40	50	60
1155	60	70	70	70	70	70	80	80	80	80	100	100	100	100	100	80	60
1156	0	0	0	10	15	15	15	25	25	30	30	30	40	40	40	50	60
1157	60	70	70	70	70	80	80	90	90	100	100	100	100	100	100	50	25
1158	0	0	0	10	15	15	25	25	30	30	30	40	40	40	50	50	60
1159	60	70	70	80	80	90	90	100	100	100	100	100	100	100	100	50	25
1160	0	0	0	10	15	25	25	30	30	30	40	40	40	50	50	60	70
1161	70	80	80	90	90	100	100	100	100	100	100	100	100	100	100	150	25
1162	0	0	0	10	15	25	25	30	30	30	40	40	40	40	50	60	70
1163	80	80	90	100	100	100	100	100	100	100	100	100	90	80	70	50	25
1164	0	0	0	10	15	25	25	30	30	30	40	40	40	40	50	60	70
1165	90	90	100	100	100	100	100	100	100	100	100	100	80	60	50	40	25
1166	0	0	0	10	15	25	25	30	30	30	40	40	40	40	50	60	70
1167	80	90	100	100	100	100	100	100	100	100	100	100	80	70	50	40	25
1168	0	0	0	10	15	25	25	30	30	30	30	30	40	40	40	50	60
1169	80	90	100	100	100	100	100	100	100	100	100	100	100	50	0	0	0
1170	0	0	0	10	15	15	25	25	30	30	30	30	40	40	40	50	60
1171	80	90	100	100	100	100	100	100	100	100	100	100	100	150	25	0	0
1172	0	0	0	10	15	15	25	25	30	30	30	30	30	30	40	40	50
1173	80	90	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0
1174	0	0	0	10	15	15	15	25	25	30	30	30	30	30	40	40	50
1175	70	70	80	100	100	100	100	100	90	70	60	50	25	0	0	0	0
1176	0	0	0	10	15	15	15	10	25	25	25	25	25	30	30	30	40
1177	50	60	60	70	80	80	80	80	80	70	50	50	40	40	0	0	0
1178	0	0	10	10	15	15	15	15	15	25	25	25	25	30	30	30	30
1179	40	50	50	50	50	50	50	60	60	50	40	25	40	0	0	0	0
1180	0	10	15	15	15	15	15	15	15	15	15	15	25	25	30	30	30
1181	30	40	40	40	40	40	40	40	40	30	25	0	0	0	0	0	0
1182	0	10	15	15	15	15	15	15	15	15	15	15	15	15	25	25	25
1183	25	25	25	25	25	25	25	25	25	25	15	0	0	0	0	0	0
1184	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1185	15	15	15	15	15	15	15	15	15	15	15	15	0	0	0	0	0
1186	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1187	15	15	15	15	15	15	15	15	15	15	15	15	0	0	0	0	0
1188	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1189	15	15	15	15	15	15	15	15	15	15	15	15	0	0	0	0	0

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 TRANSMISSIVITY - LAYER 1 (CONT)
 (FT²/S)

CARD NUMBER	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1190	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1191	15	15	15	15	15	15	15	15	15	15	15	15	15	0	0	0	0	0	0	0	0	0
1192	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1193	15	15	15	15	15	15	10	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0
1194	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1195	15	15	15	15	15	15	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1196	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1197	15	15	15	15	15	15	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1198	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1199	15	15	15	15	15	15	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1201	15	15	15	15	15	15	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1202	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1203	15	15	15	15	15	15	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1204	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1205	15	15	15	15	15	15	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1206	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1207	15	15	15	15	15	15	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1208	0	10	10	10	0	10	10	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1209	15	15	15	15	15	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1210	0	0	10	0	0	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
1211	10	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1212	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TRANSMISSIVITY - LAYER 2
(FT²/S)

CARD NUMBER																	
1214	0.00058796			1		1		1		1		1		1		1	
1215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1217	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1218	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1221	0	0	0	0	15	15	15	15	15	15	15	15	15	25	25	25	30
1222	40	40	50	50	50	50	50	50	50	40	40	40	40	30	0	0	0
1223	0	0	0	10	15	15	15	15	15	25	25	25	30	30	40	40	50
1224	60	60	60	60	60	60	60	60	60	60	60	60	60	50	0	0	0
1225	0	0	0	10	15	15	15	25	25	25	30	30	40	40	40	50	50
1226	60	70	70	70	70	80	80	80	80	100	100	100	100	100	80	60	0
1227	0	0	0	10	15	15	15	25	25	30	30	30	40	40	40	50	50
1228	60	70	70	70	70	80	80	90	90	100	100	100	100	100	100	50	25
1229	0	0	0	10	15	15	25	25	30	30	30	40	40	40	50	50	60
1230	60	70	70	80	80	90	90	100	100	100	100	100	100	100	100	50	25
1231	0	0	0	10	15	25	25	30	30	30	40	40	40	40	50	50	60
1232	70	80	80	90	90	100	100	100	100	100	100	100	100	100	100	150	25
1233	0	0	0	10	15	25	25	30	30	30	40	40	40	40	50	50	60
1234	80	80	90	100	100	100	100	100	100	100	100	100	90	80	70	50	25
1235	0	0	0	10	15	25	25	30	30	30	40	40	40	40	50	50	60
1236	90	90	100	100	100	100	100	100	100	100	100	100	80	60	50	40	25
1237	0	0	0	10	15	25	25	30	30	30	40	40	40	40	50	50	60
1238	80	90	100	100	100	100	100	100	100	100	100	100	80	70	50	40	25
1239	0	0	0	10	15	25	25	30	30	30	30	30	40	40	40	50	50
1240	80	90	100	100	100	100	100	100	100	100	100	100	100	50	0	0	0
1241	0	0	0	10	15	15	25	25	30	30	30	40	40	40	40	50	60
1242	80	90	100	100	100	100	100	100	100	100	100	100	100	150	25	0	0
1243	0	0	0	10	15	15	25	25	30	30	30	30	30	30	40	40	50
1244	80	90	100	100	100	100	100	100	100	100	90	70	60	40	40	0	0
1245	0	0	0	10	15	15	15	25	25	30	30	30	30	30	30	40	40
1246	70	70	80	100	100	100	100	100	100	90	70	60	50	25	0	0	0
1247	0	0	0	10	15	15	15	10	25	25	25	25	25	30	30	30	40
1248	50	60	60	70	80	80	80	80	80	70	50	50	40	40	0	0	0
1249	0	0	10	10	15	15	15	15	15	25	25	25	25	25	30	30	30
1250	40	50	50	50	50	50	50	60	60	50	40	25	40	0	0	0	0
1251	0	10	15	15	15	15	15	15	15	15	15	15	25	25	30	30	30
1252	30	40	40	40	40	40	40	40	40	30	25	0	0	0	0	0	0
1253	0	10	15	15	15	15	15	15	15	15	15	15	15	25	25	25	25
1254	25	25	25	25	25	25	25	25	25	25	15	0	0	0	0	0	0
1255	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1256	15	15	15	15	15	15	15	15	15	15	15	15	0	0	0	0	0
1257	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1258	15	15	15	15	15	15	15	15	15	15	15	15	0	0	0	0	0
1259	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TRANSMISSIVITY - LAYER 2 (CONT)
(FT²/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TRANSMISSIVITY - LAYER 3
(FT²/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 TRANSMISSIVITY - LAYER 3 (CONT)
 (FT²/S)

CARD NUMBER	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1331	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1332	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1333	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1334	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1335	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1336	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1337	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1338	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1339	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1340	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1341	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1342	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1343	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1344	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1345	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1346	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1347	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1348	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1349	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1350	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1351	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1352	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1353	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1354	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1355	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 TRANSMISSIVITY - LAYER 4
 (FT²/S)

CARD
NUMBER

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TRANSMISSIVITY - LAYER 4 (CONT)
(FT²/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TRANSMISSIVITY - LAYER 5
(FT²/S)

CARD NUMBER	TRANSMISSIVITY - LAYER 5 (FT ² /S)																
1427	0.0015473		1		1		1		1		1		0	0	0	0	0
1428	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1429	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1430	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1431	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1432	0	0	0	0	0	10	10	10	10	15	15	15	15	20	25	25	30
1433	30	40	40	40	50	50	50	50	50	50	40	40	0	0	0	0	0
1434	0	0	0	0	15	15	15	15	15	15	25	25	30	30	40	40	50
1435	50	50	60	70	80	80	100	100	100	100	100	100	50	0	0	0	0
1436	0	0	0	10	15	15	15	15	15	15	25	25	30	40	40	50	60
1437	50	90	100	100	100	100	150	150	200	200	300	300	300	200	180	0	0
1438	0	0	0	10	15	15	15	15	15	15	25	25	30	40	40	50	60
1439	80	100	120	130	140	150	170	180	200	300	300	300	300	200	150	100	0
1440	0	0	0	10	15	15	15	15	15	15	25	25	30	40	40	50	60
1441	80	100	120	130	150	170	190	200	250	300	300	300	300	250	200	100	25
1442	0	0	0	10	15	15	15	15	15	15	25	25	30	40	50	50	60
1443	80	100	120	130	150	170	190	200	250	300	300	300	200	150	100	50	25
1444	0	0	0	10	15	15	15	15	15	15	25	25	30	40	50	50	60
1445	80	100	120	130	150	170	190	200	220	250	250	200	100	100	100	50	25
1446	0	0	0	10	15	15	15	15	15	15	25	25	30	40	50	50	60
1447	80	90	100	130	150	170	190	200	220	220	200	100	90	80	60	50	30
1448	0	0	0	10	15	15	15	15	15	15	25	25	30	40	50	50	60
1449	90	90	100	130	150	170	190	200	210	200	100	90	70	60	50	40	25
1450	0	0	0	10	15	15	15	15	15	15	25	25	30	40	50	50	60
1451	90	90	100	120	150	160	160	150	140	120	100	90	70	50	40	30	0
1452	0	0	0	10	15	15	15	15	15	15	25	25	30	40	50	50	60
1453	80	90	100	120	140	150	150	130	120	100	90	70	50	40	0	0	0
1454	0	0	0	10	15	15	15	15	15	15	25	25	30	40	50	50	60
1455	80	90	100	110	120	130	120	110	100	90	80	60	50	40	25	0	0
1456	0	0	0	10	15	15	15	15	15	15	25	25	30	40	50	60	70
1457	80	90	100	110	120	110	100	90	80	70	60	50	40	25	25	0	0
1458	0	0	0	10	15	15	15	15	15	15	25	25	30	40	50	50	60
1459	70	80	90	100	100	100	90	80	70	60	50	40	25	20	0	0	0
1460	0	0	0	10	15	15	15	15	15	15	25	25	30	40	50	50	60
1461	50	50	50	60	70	70	70	60	50	50	40	40	25	25	0	0	0
1462	0	0	10	10	15	15	15	15	15	15	15	15	15	15	15	25	25
1463	40	40	40	50	50	50	50	40	30	30	30	40	30	0	0	0	0
1464	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	25	25
1465	30	30	30	30	30	30	30	25	25	25	25	0	0	0	0	0	0
1466	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	25
1467	25	25	25	25	25	25	25	25	25	25	25	0	0	0	0	0	0
1468	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1469	15	15	15	15	15	15	15	15	15	15	0	0	0	0	0	0	0
1470	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
1471	15	15	15	15	15	15	15	15	15	15	15	0	0	0	0	0	0
1472	0	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TRANSMISSIVITY - LAYER 5 (CONT)
(FT²/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 TRANSMISSIVITY - LAYER 6
 (FT²/S)

CARD
NUMBER
1498 | 1 1 1 |

GROUP III. ARRAY DATA (CONT)
TK - LAYER 1
(1/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TK - LAYER 1 (CONT)
(1/S)

CARD
NUMBER

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TK - LAYER 2
(1/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TK - LAYER 2 (CONT)
(1/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TK - LAYER 3
(1/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TK - LAYER 3 (CONT)
(1/S)

CARD

NUMBER

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TK - LAYER 4
(1/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 TK - LAYER 4 (CONT)
 (1/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 TK - LAYER 5
 (1/S)

CARD NUMBER																
1783	0.1E-10	1	1													
1784	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1786	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1787	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1788	0	0	0	0	05000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
1789	15000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
1790	0	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500
1791	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1792	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500	500
1793	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1794	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500	500
1795	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1796	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500	500
1797	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1798	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500	500
1799	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1800	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500	500
1801	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1802	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500	500
1803	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1804	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500	500
1805	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1806	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500	500
1807	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1808	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500	500
1809	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1810	0	0	05000	500	500	500	500	500	500	500	500	500	500	500	500	500
1811	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
1812	0	0	05000	500	500	50	50	50	50	50	50	50	50	50	50	50
1813	50	50	50	500	500	500	500	500	500	500	500	500	500	500	500	500
1814	0	0	05000	500	500	50	50	50	50	50	50	50	50	50	50	50
1815	50	50	50	500	500	500	500	500	500	500	500	500	500	500	500	500
1816	0	0	05000	500	500	50	50	50	50	50	50	50	50	50	50	50
1817	50	50	50	500	500	500	500	500	500	500	500	500	500	500	500	500
1818	0	05000	5000	5000	500	500	50	50	50	50	50	50	50	50	50	50
1819	50	50	50	500	500	500	500	500	500	500	500	500	500	500	500	500
1820	05000	500	500	50	50	50	50	50	50	50	50	50	50	50	50	50
1821	50	50	50	500	500	500	500	500	500	500	500	500	500	500	500	500
1822	05000	500	500	50	50	50	50	50	50	50	50	50	50	50	50	50
1823	50	50	50	500	500	500	500	500	500	500	500	500	500	500	500	500
1824	05000	500	500	50	50	50	50	50	50	50	50	50	50	50	50	50
1825	50	50	50	500	500	500	500	500	500	500	500	500	500	500	500	500
1826	05000	500	500	50	50	50	50	50	50	50	50	50	50	50	50	50
1827	50	50	50	500	500	500	500	500	500	500	500	500	500	500	500	500
1828	05000	500	500	50	50	50	50	50	50	50	50	50	50	50	50	50

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
TK - LAYER 5 (CONT)
(1/S)

CARD NUMBER	50	50	50	500	500	500	500	500	500	500	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1829	50	50	50	500	500	500	500	500	500	500	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1830	05000	500	500	50	50	50	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1831	50	50	50	500	500	500	500	500	500	500	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1832	05000	500	500	50	50	50	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1833	50	50	50	500	500	500	500	500	500	500	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1834	05000	500	500	50	50	50	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1835	50	50	50	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1836	05000	500	500	50	50	50	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1837	50	50	50	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1838	05000	500	500	50	50	50	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1839	50	50	50	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1840	05000	500	500	50	50	50	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1841	50	50	50	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1842	05000	500	500	50	50	50	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1843	50	50	50	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1844	05000	500	500	50	50	50	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1845	50	50	50	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1846	05000	500	500	50	50	50	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1847	50	50	50	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1848	0	500	500	50	0	50	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1849	50	50	50	500	5005000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1850	0	0	50	0	0	0	50	50	50	50	50	5005000	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
1851	50	50	50	500	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1852	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 HYDRAULIC CONDUCTIVITY - LAYER 6
 (FT/S)

CARD NUMBER																
1854	1.1574E-04	1	1													
1855																
1856																
1857																
1858																
1859																
1860	1	1	1	1	1	1	1	1	100	100	100	100	100	100	1	1
1861					1	1	100	100	100	100	100	100	100	100	1	1
1862	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1863					1	1	100	100	100	100	100	100	100	100	1	1
1864	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1865					1	1	1	1	1	1	1	1	1	1	1	1
1866	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1867					1	1	1	1	1	1	1	1	1	1	1	1
1868	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1869					1	1	1	1	1	1	1	1	1	1	1	1
1870	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1871					1	1	1	1	1	1	1	1	1	1	1	1
1872	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1873					1	1	1	1	1	1	1	1	1	1	1	1
1874	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1875					1	1	1	1	1	1	1	1	1	1	1	1
1876	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1877					1	1	1	1	1	1	1	1	1	1	1	1
1878	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1879					1	1	1	1	1	1	1	1	1	1	1	1
1880	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1881					1	1	1	1	1	1	1	1	1	1	1	1
1882	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1883					1	1	1	1	1	1	1	1	1	1	1	1
1884	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1885					1	1	100	100	1	1	1	1	1	1	1	1
1886	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1887					1	1	100	100	1	1	1	1	1	1	1	1
1888	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1889					1	1	1	1	1	1	1	1	1	1	1	1
1890	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1891					1	1	1	1	1	1	1	1	1	1	1	1
1892	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1893					1	1	1	1	1	1	1	1	1	1	1	1
1894	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1895					1	1	1	1	1	1	1	1	1	1	1	1
1896	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1897					1	1	1	1	1	1	1	1	1	1	1	1
1898	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1899					1	1	1	1	1	1	1	1	1	1	1	1

TABLE 3.--CONTINUED

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 ELEVATION OF BOTTOM OF AQUIFER - LAYER 6
 (FT)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 ELEVATION OF BOTTOM OF AQUIFER - LAYER 6 (CONT)
 (FT)

CARD NUMBER															
1971	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1972	044	104	443	744	514	456	446	144	644	46	844	714	475	448	044
1973	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1974	044	104	443	844	524	457	446	244	664	46	944	734	477	448	244
1975	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1976	044	104	439	443	944	534	459	446	344	684	447	144	754	479	448
1977	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1978	044	104	444	044	454	446	144	664	46	944	734	476	447	944	814
1979	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1980	044	104	444	144	554	462	446	744	704	473	447	644	804	448	144
1981	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1982	044	114	444	244	574	464	446	744	704	473	447	644	814	448	144
1983	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1984	044	124	444	444	594	466	446	844	470	447	144	754	448	144	814
1985	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1986	044	134	444	644	460	446	844	684	446	844	704	471	447	344	754
1987	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1988	044	144	444	944	674	446	854	471	446	844	694	447	044	714	475
1989	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1990	044	154	445	545	505	4505	445	482	447	344	724	472	447	244	734
1991	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1992	0	04500	0	0	04500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1993	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500
1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 RECHARGE RATE - LAYER 6
 (FT/S)

CARD NUMBER						
1996	9.2E-09	1	1			
1997						
1998						
1999						
2000						
2001						
2002						
2003		.28	.28	.28	.28	
2004						
2005		.28	.28	.28	.28	
2006						
2007						
2008				2.9	2.9	
2009						
2010					3.6	3.6
2011					3.6	3.6
2012						
2013						
2014						2.9
2015						
2016					3.8	4.1
2017						2.9
2018					3.8	4.1
2019			.96			
2020						3.8
2021			.96	.96		
2022					3.8	4.1
2023			.96			
2024						4.1
2025		.28	.28			
2026					4.1	2.9
2027		.28	.28			2.9
2028					4.1	
2029		.28	.28			
2030					4.1	2.9
2031						
2032					4.1	
2033						
2034				4.1		
2035						
2036				4.1		
2037						
2038				4.1		
2039						
2040				4.1		
2041						

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
RECHARGE RATE - LAYER 6 (CONT)
(FT/S)

CARD NUMBER	
2042	4.1
2043	
2044	4.1
2045	
2046	
2047	
2048	
2049	.28 .28
2050	
2051	.28 .28 .28
2052	
2053	.28 .28 .28 .28
2054	
2055	.28 .28 .28 .28
2056	.28 .28 .28
2057	
2058	.28 .28 .28 .28 .28
2059	
2060	.28 .28 .28 .28 .28
2061	
2062	.28 .28 .28 .28 .28
2063	
2064	.28
2065	
2066	

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
LEAKANCE VALUES FOR HEAD DEPENDENT FLOW - LAYER 1
(1/S)

CARD
NUMBER
2067 |

1

|

GROUP III. ARRAY DATA (CONT)
LEAKANCE VALUES FOR HEAD DEPENDENT FLOW - LAYER 2
(1/S)

2068 |

1

|

GROUP III. ARRAY DATA (CONT)
LEAKANCE VALUES FOR HEAD DEPENDENT FLOW - LAYER 3
(1/S)

2069 |

1

|

GROUP III. ARRAY DATA (CONT)
LEAKANCE VALUES FOR HEAD DEPENDENT FLOW - LAYER 4
(1/S)

2070 |

1

|

GROUP III. ARRAY DATA (CONT)
LEAKANCE VALUES FOR HEAD DEPENDENT FLOW - LAYER 5
(1/S)

2071 |

1

|

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 LEAKANCE VALUES FOR HEAD DEPENDENT FLOW - LAYER 6
 (1/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
LEAKANCE VALUES FOR HEAD DEPENDENT FLOW - LAYER 6 (CONT)
(1/S)

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 THRESHOLD HEADS FOR HEAD DEPENDENT FLOW
 (FT)

CARD NUMBER			
2143	4585.	4555.	4555.
2144	4580.	4550.	4550.
2145	4580.	4550.	4550.
2146	4587.	4557.	4557.
2147	4595.	4565.	4565.
2148	4625.	4595.	4595.
2149	4630.	4600.	4600.
2150	4685.	4655.	4655.
2151	4565.	4535.	4535.
2152	4565.	4535.	4535.
2153	4567.	4537.	4537.
2154	4577.	4547.	4547.
2155	4575.	4545.	4545.
2156	4572.	4542.	4542.
2157	4590.	4560.	4560.
2158	4605.	4575.	4575.
2159	4615.	4585.	4585.
2160	4640.	4610.	4610.
2161	4593.	4563.	4563.
2162	4580.	4550.	4550.
2163	4570.	4540.	4540.
2164	4570.	4540.	4540.
2165	4560.	4530.	4530.
2166	4565.	4535.	4535.
2167	4575.	4545.	4545.
2168	4575.	4545.	4545.
2169	4585.	4555.	4555.
2170	4592.	4562.	4562.
2171	4585.	4555.	4555.
2172	4582.	4552.	4552.
2173	4565.	4535.	4535.
2174	4560.	4530.	4530.
2175	4560.	4530.	4530.
2176	4560.	4530.	4530.
2177	4565.	4535.	4535.
2178	4570.	4540.	4540.
2179	4580.	4550.	4550.
2180	4585.	4555.	4555.
2181	4595.	4565.	4565.
2182	4583.	4553.	4553.
2183	4570.	4540.	4540.
2184	4561.	4531.	4531.
2185	4560.	4530.	4530.
2186	4560.	4530.	4530.
2187	4560.	4530.	4530.
2188	4565.	4535.	4535.

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 THRESHOLD HEADS FOR HEAD DEPENDENT FLOW (CONT)
 (FT)

CARD NUMBER			
2189		4570.	4540.
2190		4575.	4545.
2191		4585.	4555.
2192		4590.	4560.
2193		4615.	4585.
2194		4578.	4548.
2195		4567.	4537.
2196		4563.	4533.
2197		4560.	4530.
2198		4560.	4530.
2199		4563.	4533.
2200		4565.	4535.
2201		4567.	4537.
2202		4570.	4540.
2203		4580.	4550.
2204		4585.	4555.
2205		4600.	4570.
2206		4580.	4550.
2207		4567.	4537.
2208		4563.	4533.
2209		4562.	4532.
2210		4565.	4535.
2211		4565.	4535.
2212		4570.	4540.
2213		4570.	4540.
2214		4582.	4552.
2215		4590.	4560.
2216		4600.	4570.
2217		4640.	4610.
2218		4650.	4620.
2219		4564.	4534.
2220		4563.	4533.
2221		4565.	4535.
2222		4567.	4537.
2223		4575.	4545.
2224		4577.	4547.
2225		4577.	4547.
2226		4585.	4555.
2227		4595.	4565.
2228		4615.	4585.
2229		4630.	4600.
2230		4565.	4535.
2231		4562.	4532.
2232		4565.	4535.
2233		4595.	4565.
2234		4605.	4575.

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 THRESHOLD HEADS FOR HEAD DEPENDENT FLOW (CONT)
 (FT)

CARD NUMBER			
2235	4620.	4590.	4590.
2236	4570.	4540.	4540.
2237	4567.	4537.	4537.
2238	4570.	4540.	4540.
2239	4605.	4575.	4575.
2240	4620.	4590.	4590.
2241	4565.	4535.	4535.
2242	4567.	4537.	4537.
2243	4570.	4540.	4540.
2244	4610.	4580.	4580.
2245	4565.	4535.	4535.
2246	4570.	4540.	4540.
2247	4574.	4544.	4544.
2248	4565.	4535.	4535.
2249	4568.	4538.	4538.
2250	4575.	4545.	4545.
2251	4576.	4546.	4546.
2252	4575.	4545.	4545.
2253	4565.	4535.	4535.
2254	4572.	4542.	4542.
2255	4575.	4545.	4545.
2256	4580.	4550.	4550.
2257	4585.	4555.	4555.
2258	4565.	4535.	4535.
2259	4558.	4528.	4528.
2260	4563.	4533.	4533.
2261	4573.	4543.	4543.
2262	4575.	4545.	4545.
2263	4575.	4545.	4545.
2264	4680.	4650.	4650.
2265	4680.	4650.	4650.
2266	4700.	4670.	4670.
2267	4555.	4525.	4525.
2268	4560.	4530.	4530.
2269	4560.	4530.	4530.
2270	4565.	4535.	4535.
2271	4570.	4540.	4540.
2272	4571.	4541.	4541.
2273	4573.	4543.	4543.
2274	4575.	4545.	4545.
2275	4582.	4552.	4552.
2276	4590.	4560.	4560.
2277	4635.	4605.	4605.
2278	4670.	4640.	4640.
2279	4550.	4520.	4520.
2280	4560.	4530.	4530.

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 THRESHOLD HEADS FOR HEAD DEPENDENT FLOW (CONT)
 (FT)

CARD NUMBER			
2281		4565.	4535.
2282		4565.	4535.
2283		4565.	4535.
2284		4570.	4540.
2285		4570.	4540.
2286		4572.	4542.
2287		4580.	4550.
2288		4617.	4587.
2289		4620.	4590.
2290		4670.	4640.
2291		4550.	4520.
2292		4555.	4525.
2293		4560.	4530.
2294		4560.	4530.
2295		4565.	4535.
2296		4565.	4535.
2297		4565.	4535.
2298		4571.	4541.
2299		4574.	4544.
2300		4614.	4584.
2301		4608.	4578.
2302		4635.	4605.
2303		4553.	4523.
2304		4555.	4525.
2305		4560.	4530.
2306		4560.	4530.
2307		4560.	4530.
2308		4562.	4532.
2309		4565.	4535.
2310		4570.	4540.
2311		4573.	4543.
2312		4578.	4548.
2313		4583.	4553.
2314		4588.	4558.
2315		4605.	4575.
2316		4618.	4588.
2317		4550.	4520.
2318		4550.	4520.
2319		4555.	4525.
2320		4560.	4530.
2321		4560.	4530.
2322		4560.	4530.
2323		4560.	4530.
2324		4565.	4535.
2325		4571.	4541.
2326		4578.	4548.

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 THRESHOLD HEADS FOR HEAD DEPENDENT FLOW (CONT)
 (FT)

CARD NUMBER			
2327	4578.	4548.	4548.
2328	4598.	4568.	4568.
2329	4598.	4568.	4568.
2330	4615.	4585.	4585.
2331	4555.	4525.	4525.
2332	4550.	4520.	4520.
2333	4550.	4520.	4520.
2334	4560.	4530.	4530.
2335	4555.	4525.	4525.
2336	4560.	4530.	4530.
2337	4560.	4530.	4530.
2338	4565.	4535.	4535.
2339	4568.	4538.	4538.
2340	4575.	4545.	4545.
2341	4585.	4555.	4555.
2342	4588.	4558.	4558.
2343	4590.	4560.	4560.
2344	4590.	4560.	4560.
2345	4588.	4558.	4558.
2346	4590.	4560.	4560.
2347	4555.	4525.	4525.
2348	4550.	4520.	4520.
2349	4550.	4520.	4520.
2350	4555.	4525.	4525.
2351	4555.	4525.	4525.
2352	4560.	4530.	4530.
2353	4565.	4535.	4535.
2354	4565.	4535.	4535.
2355	4578.	4548.	4548.
2356	4580.	4550.	4550.
2357	4578.	4548.	4548.
2358	4580.	4550.	4550.
2359	4585.	4555.	4555.
2360	4582.	4552.	4552.
2361	4585.	4555.	4555.
2362	4583.	4553.	4553.
2363	4581.	4551.	4551.
2364	4555.	4525.	4525.
2365	4550.	4520.	4520.
2366	4553.	4523.	4523.
2367	4555.	4525.	4525.
2368	4555.	4525.	4525.
2369	4560.	4530.	4530.
2370	4575.	4545.	4545.
2371	4565.	4535.	4535.
2372	4570.	4540.	4540.

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 THRESHOLD HEADS FOR HEAD DEPENDENT FLOW (CONT)
 (FT)

CARD NUMBER			
2373	4575.	4545.	4545.
2374	4567.	4537.	4537.
2375	4575.	4545.	4545.
2376	4575.	4545.	4545.
2377	4580.	4550.	4550.
2378	4577.	4547.	4547.
2379	4580.	4550.	4550.
2380	4575.	4545.	4545.
2381	4575.	4545.	4545.
2382	4555.	4525.	4525.
2383	4549.	4519.	4519.
2384	4555.	4525.	4525.
2385	4560.	4530.	4530.
2386	4565.	4535.	4535.
2387	4560.	4530.	4530.
2388	4567.	4537.	4537.
2389	4570.	4540.	4540.
2390	4570.	4540.	4540.
2391	4570.	4540.	4540.
2392	4566.	4536.	4536.
2393	4570.	4540.	4540.
2394	4570.	4540.	4540.
2395	4570.	4540.	4540.
2396	4570.	4540.	4540.
2397	4575.	4545.	4545.
2398	4575.	4545.	4545.
2399	4590.	4560.	4560.
2400	4550.	4520.	4520.
2401	4549.	4519.	4519.
2402	4560.	4530.	4530.
2403	4558.	4528.	4528.
2404	4560.	4530.	4530.
2405	4565.	4535.	4535.
2406	4565.	4535.	4535.
2407	4570.	4540.	4540.
2408	4570.	4540.	4540.
2409	4571.	4541.	4541.
2410	4571.	4541.	4541.
2411	4574.	4544.	4544.
2412	4572.	4542.	4542.
2413	4569.	4539.	4539.
2414	4575.	4545.	4545.
2415	4572.	4542.	4542.
2416	4585.	4555.	4555.
2417	4550.	4520.	4520.

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 THRESHOLD HEADS FOR HEAD DEPENDENT FLOW (CONT)
 (FT)

CARD NUMBER			
2418	4550.	4520.	4520.
2419	4556.	4526.	4526.
2420	4552.	4522.	4522.
2421	4555.	4525.	4525.
2422	4565.	4535.	4535.
2423	4565.	4535.	4535.
2424	4570.	4540.	4540.
2425	4570.	4540.	4540.
2426	4564.	4534.	4534.
2427	4565.	4535.	4535.
2428	4566.	4536.	4536.
2429	4570.	4540.	4540.
2430	4575.	4545.	4545.
2431	4580.	4550.	4550.
2432	4587.	4557.	4557.
2433	4550.	4520.	4520.
2434	4555.	4525.	4525.
2435	4565.	4535.	4535.
2436	4551.	4521.	4521.
2437	4560.	4530.	4530.
2438	4565.	4535.	4535.
2439	4565.	4535.	4535.
2440	4565.	4535.	4535.
2441	4565.	4535.	4535.
2442	4566.	4536.	4536.
2443	4570.	4540.	4540.
2444	4570.	4540.	4540.
2445	4573.	4543.	4543.
2446	4580.	4550.	4550.
2447	4605.	4575.	4575.
2448	4540.	4510.	4510.
2449	4550.	4520.	4520.
2450	4550.	4520.	4520.
2451	4550.	4520.	4520.
2452	4550.	4520.	4520.
2453	4552.	4522.	4522.
2454	4551.	4521.	4521.
2455	4575.	4545.	4545.
2456	4565.	4535.	4535.
2457	4568.	4538.	4538.
2458	4565.	4535.	4535.
2459	4565.	4535.	4535.
2460	4570.	4540.	4540.
2461	4570.	4540.	4540.
2462	4572.	4542.	4542.
2463	4550.	4520.	4520.

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 THRESHOLD HEADS FOR HEAD DEPENDENT FLOW (CONT)
 (FT)

CARD NUMBER			
2464	4557.	4527.	4527.
2465	4561.	4531.	4531.
2466	4565.	4535.	4535.
2467	4566.	4536.	4536.
2468	4566.	4536.	4536.
2469	4564.	4534.	4534.
2470	4570.	4540.	4540.
2471	4575.	4545.	4545.
2472	4565.	4535.	4535.
2473	4565.	4535.	4535.
2474	4567.	4537.	4537.
2475	4575.	4545.	4545.
2476	4575.	4545.	4545.
2477	4575.	4545.	4545.
2478	4540.	4510.	4510.
2479	4600.	4570.	4570.
2480	4577.	4547.	4547.
2481	4575.	4545.	4545.
2482	4578.	4548.	4548.
2483	4585.	4555.	4555.
2484	4588.	4558.	4558.
2485	4589.	4559.	4559.
2486	4580.	4550.	4550.
2487	4575.	4545.	4545.
2488	4585.	4555.	4555.
2489	4585.	4555.	4555.

TABLE 3.--CONTINUED

GROUP III. ARRAY DATA (CONT)
 GRID SPACING IN THE X DIRECTION
 (FT)

CARD NUMBER								
2490		1	1	1				
2491	60142.5	40095	26730	17820	11880	7920	5280	5280
2492	5280	5280	5280	5280	5280	5280	5280	5280
2493	5280	5280	5280	5280	5280	5280	5280	5280
2494	5280	5280	5280	5280	5280	5280	5280	5280
2495	5280	5280	5280	5280	5280	5280	5280	5280

GROUP III. ARRAY DATA (CONT)
 GRID SPACING IN THE Y DIRECTION
 (FT)

2496		1	1	1				
2497	60142.5	40095	26730	17820	11880	7920	5280	5280
2498	5280	5280	5280	5280	5280	5280	5280	5280
2499	5280	5280	5280	5280	5280	5280	5280	5280
2500	5280	5280	5280	5280	5280	5280	7920	11880
2501	17820	26730	40095					

GROUP III. ARRAY DATA (CONT)
 GRID SPACING IN THE Z DIRECTION
 (FT)

2502		1	1	1				
2503	450	300	253.125	168.75	112.5	75		

WMAX AND HMAX

2504		1	.5					
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TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD
 PUMPING PERIOD NUMBER 1 - 1952 TO 1958
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER								
2505	1	0	167	2555	7	1	8760	
2506	6	3	6	-0.666624				
2507	6	3	7	0.431342				
2508	6	3	8	-1.889034				
2509	6	3	9	2.014529				
2510	6	3	10-23.181732					
2511	6	3	11	23.339508				
2512	6	3	12	1.310150				
2513	6	3	13	0.131392				
2514	6	3	14	0.063765				
2515	6	3	15	-0.089072				
2516	6	3	16	-2.434632				
2517	6	3	17	2.247620				
2518	6	3	18	-0.498793				
2519	6	3	19	-8.697537				
2520	6	3	20	5.122633				
2521	6	3	21	-3.225579				
2522	6	3	22	-0.707285				
2523	6	3	23	3.963917				
2524	6	3	24	3.712992				
2525	6	3	25	-7.579944				
2526	6	3	26	4.339444				
2527	6	3	27	1.129159				
2528	6	3	28	3.030056				
2529	6	3	29	0.915236				
2530	6	3	30	-1.177725				
2531	6	3	31	1.298210				
2532	6	3	32	1.516096				
2533	6	3	33	4.933349				
2534	6	4	5	-1.254580				
2535	6	4	34	7.281391				
2536	6	5	4	-0.715418				
2537	6	5	35	6.288570				
2538	6	6	4	-0.441624				
2539	6	7	4	-0.275582				
2540	6	7	38	0.409654				
2541	6	8	4	-0.261785				
2542	6	8	38	0.634842				
2543	6	9	4	-0.249766				
2544	6	9	38	0.128416				
2545	6	10	4	-0.238975				
2546	6	10	38	-0.009652				
2547	6	11	4	-0.228890				
2548	6	11	35	-2.090115				
2549	6	11	37	0.784172				

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD
 PUMPING PERIOD NUMBER 1 - 1952 TO 1958 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
2550	6	12	4	-0.217827
2551	6	12	34	-2.617661
2552	6	12	36	2.066625
2553	6	13	4	-0.204423
2554	6	13	34	8.004854
2555	6	14	4	-0.188382
2556	6	14	35	1.130127
2557	6	15	4	-0.164492
2558	6	15	35	0.338640
2559	6	16	4	-0.128731
2560	6	16	34	1.649562
2561	6	17	4	-0.064509
2562	6	17	34	3.903675
2563	6	18	3	-0.968147
2564	6	18	4	0.555195
2565	6	18	32	-3.885242
2566	6	18	33	3.371967
2567	6	19	2	-0.210925
2568	6	19	31	-0.125957
2569	6	20	2	-0.220628
2570	6	20	31	0.229478
2571	6	21	2	-0.228362
2572	6	21	31	0.287879
2573	6	22	2	-0.235242
2574	6	22	31	-0.014151
2575	6	23	2	-0.241834
2576	6	23	31	0.401435
2577	6	24	2	-0.249324
2578	6	24	31	0.835119
2579	6	25	2	-0.258525
2580	6	25	27	-0.460438
2581	6	25	28	-0.901733
2582	6	25	29	-0.994839
2583	6	25	30	1.452032
2584	6	26	2	-0.271115
2585	6	26	26	1.096174
2586	6	27	2	-0.292495
2587	6	27	26	0.895636
2588	6	28	2	-0.511611
2589	6	28	26	0.857211
2590	6	29	2	-0.290308
2591	6	29	26	0.784786
2592	6	30	2	-0.226000
2593	6	30	26	1.029646
2594	6	31	2	-0.331035

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD
 PUMPING PERIOD NUMBER 1 - 1952 TO 1958 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
2595	6	31	26	1.484611
2596	6	32	2	-0.577279
2597	6	32	5	1.570942
2598	6	32	26	1.994522
2599	6	33	2	-0.833880
2600	6	33	4	3.501467
2601	6	33	6	1.380342
2602	6	33	26	35.623978
2603	6	34	3	1.607290
2604	6	34	7	0.139619
2605	6	34	8	0.199850
2606	6	34	9	0.213737
2607	6	34	10	0.200880
2608	6	34	11	0.168628
2609	6	34	12	0.118006
2610	6	34	13	0.037303
2611	6	34	14	-0.604273
2612	6	34	15	0.796422
2613	6	34	16	-0.509126
2614	6	34	17	0.962844
2615	6	34	18	0.188661
2616	6	34	19	-0.009788
2617	6	34	20	-0.853531
2618	6	34	21	0.748116
2619	6	34	22	-1.421647
2620	6	34	23	0.532105
2621	6	34	24	-75.653931
2622	6	34	25	72.348572
2623	5	5	31	-0.58
2624	5	7	34	-0.25
2625	4	7	34	-0.24
2626	5	8	34	-0.50
2627	4	8	34	-0.49
2628	5	8	33	-0.47
2629	4	8	33	-0.47
2630	5	10	37	-0.63
2631	4	10	37	-0.62
2632	5	11	36	-0.09
2633	4	11	36	-0.09
2634	5	6	32	-0.81
2635	5	6	31	-0.31
2636	5	8	32	-0.29
2637	5	8	31	-0.07
2638	2	10	31	-0.02
2639	2	11	29	-0.03

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD
 PUMPING PERIOD NUMBER 1 - 1952 TO 1958 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
2640		2	11	32 -0.02
2641		3	11	32 -0.02
2642		4	11	32 -0.02
2643		5	11	32 -0.02
2644		5	14	33 -0.02
2645		4	14	33 -0.01
2646		5	15	33 -0.03
2647		4	15	33 -0.03
2648		4	16	33 -0.02
2649		5	16	33 -0.02
2650		2	13	20 -0.04
2651		3	13	20 -0.04
2652		4	13	20 -0.04
2653		5	13	20 -0.04
2654		2	15	20 -0.16
2655		3	15	20 -0.16
2656		4	15	20 -0.16
2657		2	15	11 -0.02
2658		3	15	11 -0.02
2659		4	15	11 -0.02
2660		5	15	11 -0.02
2661		2	18	24 -0.02
2662		3	18	24 -0.02
2663		4	18	24 -0.02
2664		5	18	24 -0.02
2665		2	18	21 -0.09
2666		3	18	21 -0.09
2667		4	18	21 -0.09
2668		5	18	21 -0.09
2669		2	20	21 -0.02
2670		2	18	20 -0.13
2671		5	19	15 -0.01
2672		4	21	16 -0.24

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 2 - 1959 TO 1962
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER							
2673	2	1	169	1460	4	1	8760
2674	6	3	6	-0.666624			
2675	6	3	7	0.431342			
2676	6	3	8	-1.889034			
2677	6	3	9	2.014529			
2678	6	3	10-23	1.181732			
2679	6	3	11	23.339508			
2680	6	3	12	1.310150			
2681	6	3	13	0.131392			
2682	6	3	14	0.063765			
2683	6	3	15	-0.089072			
2684	6	3	16	-2.434632			
2685	6	3	17	2.247620			
2686	6	3	18	-0.498793			
2687	6	3	19	-8.697537			
2688	6	3	20	5.122633			
2689	6	3	21	-3.225579			
2690	6	3	22	-0.707285			
2691	6	3	23	3.963917			
2692	6	3	24	3.712992			
2693	6	3	25	-7.579944			
2694	6	3	26	4.339444			
2695	6	3	27	1.129159			
2696	6	3	28	3.030056			
2697	6	3	29	0.915236			
2698	6	3	30	-1.177725			
2699	6	3	31	1.298210			
2700	6	3	32	1.516096			
2701	6	3	33	4.933349			
2702	6	4	34	-1.254580			
2703	6	4	34	7.281391			
2704	6	5	34	-0.715418			
2705	6	5	35	6.288570			
2706	6	6	34	-0.441624			
2707	6	7	34	-0.275582			
2708	6	7	38	0.409654			
2709	6	8	34	-0.261785			
2710	6	8	38	0.634842			
2711	6	9	34	-0.249766			
2712	6	9	38	0.128416			
2713	5	10	34	-0.238975			
2714	6	10	38	-0.009652			
2715	6	11	34	-0.228890			
2716	6	11	35	-2.090115			
2717	6	11	37	0.784172			

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 2 - 1959 TO 1962 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
2718		6	12	4 -0.217827
2719		6	12	34 -2.617661
2720		6	12	36 2.066625
2721		6	13	4 -0.204423
2722		6	13	34 8.004854
2723		6	14	4 -0.188382
2724		6	14	35 1.130127
2725		6	15	4 -0.164492
2726		6	15	35 0.338640
2727		6	16	4 -0.128731
2728		6	16	34 1.649562
2729		6	17	4 -0.064509
2730		6	17	34 3.903675
2731		6	18	3 -0.968147
2732		6	18	4 0.555195
2733		6	18	32 -3.885242
2734		6	18	33 3.371967
2735		6	19	2 -0.210925
2736		6	19	31 -0.125957
2737		6	20	2 -0.220628
2738		6	20	31 0.229478
2739		6	21	2 -0.228362
2740		6	21	31 0.287879
2741		6	22	2 -0.235242
2742		6	22	31 -0.014151
2743		6	23	2 -0.241834
2744		6	23	31 0.401435
2745		6	24	2 -0.249324
2746		6	24	31 0.835119
2747		6	25	2 -0.258525
2748		6	25	27 -0.460438
2749		6	25	28 -0.901733
2750		6	25	29 -0.994839
2751		6	25	30 1.452032
2752		6	26	2 -0.271115
2753		6	26	26 1.096174
2754		6	27	2 -0.292495
2755		6	27	26 0.895636
2756		6	28	2 -0.511611
2757		6	28	26 0.857211
2758		6	29	2 -0.290308
2759		6	29	26 0.784786
2760		6	30	2 -0.226000
2761		6	30	26 1.029646
2762		6	31	2 -0.331035

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 2 - 1959 TO 1962 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD. IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
2763	6	31	26	1.484611
2764	6	32	2	-0.577279
2765	6	32	5	1.570942
2766	6	32	26	1.994522
2767	6	33	2	-0.833880
2768	6	33	4	3.501467
2769	6	33	6	1.380342
2770	6	33	26	35.623978
2771	6	34	3	1.607290
2772	6	34	7	0.139619
2773	6	34	8	0.199850
2774	6	34	9	0.213737
2775	6	34	10	0.200880
2776	6	34	11	0.168628
2777	6	34	12	0.118006
2778	6	34	13	0.037303
2779	6	34	14	-0.604273
2780	6	34	15	0.796422
2781	6	34	16	-0.509126
2782	6	34	17	0.962844
2783	6	34	18	0.188661
2784	6	34	19	-0.009788
2785	6	34	20	-0.853531
2786	6	34	21	0.748116
2787	6	34	22	-1.421647
2788	6	34	23	0.532105
2789	6	34	24	-75.653931
2790	6	34	25	72.348572
2791	5	5	31	-1.06
2792	5	7	34	-.31
2793	4	7	34	-.31
2794	5	8	34	-0.68
2795	4	8	34	-.67
2796	5	8	33	-0.77
2797	4	8	33	-.76
2798	5	10	37	-1.05
2799	4	10	37	-1.05
2800	5	11	36	-0.70
2801	4	11	36	-.70
2802	5	6	32	-1.11
2803	5	6	31	-1.35
2804	5	8	32	-1.53
2805	5	8	31	-.07
2806	2	10	31	-3.09
2807	2	11	29	-.77

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 2 - 1959 TO 1962 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
2808	4	11	32	-.10
2809	2	8	15	-.11
2810	3	8	15	-.11
2811	4	8	15	-.11
2812	1	11	17	-.09
2813	2	11	17	-.09
2814	5	14	33	-.28
2815	4	14	33	-.28
2816	5	15	33	-.07
2817	4	15	33	-.06
2818	4	16	33	-.26
2819	5	16	33	-.26
2820	2	14	27	-.37
2821	2	15	27	-1.37
2822	2	13	18	-.46
2823	2	13	20	-.05
2824	3	13	20	-.05
2825	4	13	20	-.05
2826	5	13	20	-.05
2827	2	15	20	-.23
2828	3	15	20	-.23
2829	4	15	20	-.23
2830	2	13	14	-.07
2831	4	15	11	-.07
2832	2	16	13	-.85
2833	4	18	24	-.03
2834	2	18	21	-.05
2835	3	18	21	-.05
2836	4	18	21	-.05
2837	5	18	21	-.05
2838	2	20	22	-.01
2839	2	20	21	-.07
2840	2	18	20	-.31
2841	5	19	15	-.02
2842	4	21	16	-0.24

TABLE 3.--CONTINUED
 GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 3 - 1963 TO 1968
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER							
2843		3	2	198	2190	6	1
2844		6	3	6	-0.666624		
2845		6	3	7	0.431342		
2846		6	3	8	-1.889034		
2847		6	3	9	2.014529		
2848		6	3	10-23	.181732		
2849		6	3	11	23.339508		
2850		6	3	12	1.310150		
2851		6	3	13	0.131392		
2852		6	3	14	0.063765		
2853		6	3	15	-0.089072		
2854		6	3	16	-2.434632		
2855		6	3	17	2.247620		
2856		6	3	18	-0.498793		
2857		6	3	19	-8.697537		
2858		6	3	20	5.122633		
2859		6	3	21	-3.225579		
2860		6	3	22	-0.707285		
2861		6	3	23	3.963917		
2862		6	3	24	3.712992		
2863		6	3	25	-7.579944		
2864		6	3	26	4.339444		
2865		6	3	27	1.129159		
2866		6	3	28	3.030056		
2867		6	3	29	0.915236		
2868		6	3	30	-1.177725		
2869		6	3	31	1.298210		
2870		6	3	32	1.516096		
2871		6	3	33	4.933349		
2872		6	4	5	-1.254580		
2873		6	4	34	7.281391		
2874		6	5	4	-0.715418		
2875		6	5	35	6.288570		
2876		6	6	4	-0.441624		
2877		6	7	4	-0.275582		
2878		6	7	38	0.409654		
2879		6	8	4	-0.261785		
2880		6	8	38	0.634842		
2881		6	9	4	-0.249766		
2882		6	9	38	0.128416		
2883		6	10	4	-0.238975		
2884		6	10	38	-0.009652		
2885		6	11	4	-0.228890		
2886		6	11	35	-2.090115		
2887		6	11	37	0.784172		

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 3 - 1963 TO 1968 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
2888		6	12	4 -0.217827
2889		6	12	34 -2.617661
2890		6	12	36 2.066625
2891		6	13	4 -0.204423
2892		6	13	34 8.004854
2893		6	14	4 -0.188382
2894		6	14	35 1.130127
2895		6	15	4 -0.164492
2896		6	15	35 0.338640
2897		6	16	4 -0.128731
2898		6	16	34 1.649562
2899		6	17	4 -0.064509
2900		6	17	34 3.903675
2901		6	18	3 -0.968147
2902		6	18	4 0.555195
2903		6	18	32 -3.885242
2904		6	18	33 3.371967
2905		6	19	2 -0.210925
2906		6	19	31 -0.125957
2907		6	20	2 -0.220628
2908		6	20	31 0.229478
2909		6	21	2 -0.228362
2910		6	21	31 0.287879
2911		6	22	2 -0.235242
2912		6	22	31 -0.014151
2913		6	23	2 -0.241834
2914		6	23	31 0.401435
2915		6	24	2 -0.249324
2916		6	24	31 0.835119
2917		6	25	2 -0.258525
2918		6	25	27 -0.460438
2919		6	25	28 -0.901733
2920		6	25	29 -0.994839
2921		6	25	30 1.452032
2922		6	26	2 -0.271115
2923		6	26	26 1.096174
2924		6	27	2 -0.292495
2925		6	27	26 0.895636
2926		6	28	2 -0.511611
2927		6	28	26 0.857211
2928		6	29	2 -0.290308
2929		6	29	26 0.784786
2930		6	30	2 -0.226000
2931		6	30	26 1.029646
2932		6	31	2 -0.331035

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 3 - 1963 TO 1968 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
2933		6	31	26 1.484611
2934		6	32	2 -0.577279
2935		6	32	5 1.570942
2936		6	32	26 1.994522
2937		6	33	2 -0.833880
2938		6	33	4 3.501467
2939		6	33	6 1.380342
2940		6	33	26 35.623978
2941		6	34	3 1.607290
2942		6	34	7 0.139619
2943		6	34	8 0.199850
2944		6	34	9 0.213737
2945		6	34	10 0.200880
2946		6	34	11 0.168628
2947		6	34	12 0.118006
2948		6	34	13 0.037303
2949		6	34	14 -0.604273
2950		6	34	15 0.796422
2951		6	34	16 -0.509126
2952		6	34	17 0.962844
2953		6	34	18 0.188661
2954		6	34	19 -0.009788
2955		6	34	20 -0.853531
2956		6	34	21 0.748116
2957		6	34	22 -1.421647
2958		6	34	23 0.532105
2959		6	34	24-75.653931
2960		6	34	25 72.348572
2961		5	5	31 -1.24
2962		5	7	34 -.40
2963		4	7	34 -.39
2964		4	7	37 -.70
2965		5	7	37 -.70
2966		5	8	34 -.81
2967		4	8	34 -.81
2968		5	8	33 -.57
2969		4	8	33 -.57
2970		2	9	34 -.66
2971		5	10	37 -1.12
2972		4	10	37 -1.12
2973		5	11	36 -0.69
2974		4	11	36 -.68
2975		5	6	32 -1.27
2976		5	6	31 -.92
2977		5	8	31 -.19

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 3 - 1963 TO 1968 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD
NUMBER

2978	5	8	32	-1.72
2979	2	10	31	-2.50
2980	2	11	29	-3.39
2981	2	11	32	-.31
2982	3	11	32	-.31
2983	4	11	32	-.31
2984	5	11	32	-.31
2985	2	8	15	-.07
2986	3	8	15	-.07
2987	4	8	15	-.07
2988	2	10	18	-.04
2989	3	10	18	-.04
2990	4	10	18	-.04
2991	5	10	18	-.04
2992	1	11	17	-.16
2993	2	11	17	-.16
2994	2	11	19	-.04
2995	3	11	19	-.04
2996	4	11	19	-.04
2997	5	11	19	-.04
2998	5	11	20	-.58
2999	5	14	33	-.28
3000	4	14	33	-.27
3001	5	15	33	-.01
3002	4	15	33	-.01
3003	4	16	33	-.19
3004	5	16	33	-.19
3005	2	14	27	-3.14
3006	2	15	27	-2.35
3007	2	12	18	-.22
3008	2	13	18	-.92
3009	2	13	19	-.24
3010	2	13	20	-.09
3011	3	13	20	-.09
3012	4	13	20	-.09
3013	5	13	20	-.09
3014	2	15	20	-.27
3015	3	15	20	-.27
3016	4	15	20	-.27
3017	2	13	14	-.26
3018	2	15	11	-.04
3019	3	15	11	-.04
3020	4	15	11	-.04
3021	5	15	11	-.04
3022	2	15	12	-.03

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 3 - 1963 TO 1968 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3023		3	15	12
3024		4	15	12
3025		5	15	12
3026		2	16	13
3027		2	18	21
3028		3	18	21
3029		4	18	21
3030		5	18	21
3031		2	20	22
3032		2	22	23
3033		3	22	23
3034		4	22	23
3035		5	22	23
3036		2	18	20
3037		5	19	15
3038		5	23	19
3039		2	19	13
3040		2	24	21
3041		4	21	-0.24

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 4 - 1969 TO 1971
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER								
3042		4	3	206	1095	3	1	8760
3043		6	3	6	-0.666624			
3044		6	3	7	0.431342			
3045		6	3	8	-1.889034			
3046		6	3	9	2.014529			
3047		6	3	10-23	1.181732			
3048		6	3	11	23.339508			
3049		6	3	12	1.310150			
3050		6	3	13	0.131392			
3051		6	3	14	0.063765			
3052		6	3	15	-0.089072			
3053		6	3	16	-2.434632			
3054		6	3	17	2.247620			
3055		6	3	18	-0.498793			
3056		6	3	19	-8.697537			
3057		6	3	20	5.122633			
3058		6	3	21	-3.225579			
3059		6	3	22	-0.707285			
3060		6	3	23	3.963917			
3061		6	3	24	3.712992			
3062		6	3	25	-7.579944			
3063		6	3	26	4.339444			
3064		6	3	27	1.129159			
3065		6	3	28	3.030056			
3066		6	3	29	0.915236			
3067		6	3	30	-1.177725			
3068		6	3	31	1.298210			
3069		6	3	32	1.516096			
3070		6	3	33	4.933349			
3071		6	4	5	-1.254580			
3072		6	4	34	7.281391			
3073		6	5	4	-0.715418			
3074		6	5	35	6.288570			
3075		6	6	4	-0.441624			
3076		6	7	4	-0.275582			
3077		6	7	38	0.409654			
3078		6	8	4	-0.261785			
3079		6	8	38	0.634842			
3080		6	9	4	-0.249766			
3081		6	9	38	0.128416			
3082		6	10	4	-0.238975			
3083		6	10	38	-0.009652			
3084		6	11	4	-0.228890			
3085		6	11	35	-2.090115			
3086		6	11	37	0.784172			

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 4 - 1969 TO 1971 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3087	6	12	4	-0.217827
3088	6	12	34	-2.617661
3089	6	12	36	2.066625
3090	6	13	4	-0.204423
3091	6	13	34	8.004854
3092	6	14	4	-0.188382
3093	6	14	35	1.130127
3094	6	15	4	-0.164492
3095	6	15	35	0.338640
3096	6	16	4	-0.128731
3097	6	16	34	1.649562
3098	6	17	4	-0.064509
3099	6	17	34	3.903675
3100	6	18	3	-0.968147
3101	6	18	4	0.555195
3102	6	18	32	-3.885242
3103	6	18	33	3.371967
3104	6	19	2	-0.210925
3105	6	19	31	-0.125957
3106	6	20	2	-0.220628
3107	6	20	31	0.229478
3108	6	21	2	-0.228362
3109	6	21	31	0.287879
3110	6	22	2	-0.235242
3111	6	22	31	-0.014151
3112	6	23	2	-0.241834
3113	6	23	31	0.401435
3114	6	24	2	-0.249324
3115	6	24	31	0.835119
3116	6	25	2	-0.258525
3117	6	25	27	-0.460438
3118	6	25	28	-0.901733
3119	6	25	29	-0.994839
3120	6	25	30	1.452032
3121	6	26	2	-0.271115
3122	6	26	26	1.096174
3123	6	27	2	-0.292495
3124	6	27	26	0.895636
3125	6	28	2	-0.511611
3126	6	28	26	0.857211
3127	6	29	2	-0.290308
3128	6	29	26	0.784786
3129	6	30	2	-0.226000
3130	6	30	26	1.029646
3131	6	31	2	-0.331035

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 4 - 1969 TO 1971 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD
NUMBER

3132	6	31	26	1.484611
3133	6	32	2	-0.577279
3134	6	32	5	1.570942
3135	6	32	26	1.994522
3136	6	33	2	-0.833880
3137	6	33	4	3.501467
3138	6	33	6	1.380342
3139	6	33	26	35.623978
3140	6	34	3	1.607290
3141	6	34	7	0.139619
3142	6	34	8	0.199850
3143	6	34	9	0.213737
3144	6	34	10	0.200880
3145	6	34	11	0.168628
3146	6	34	12	0.118006
3147	6	34	13	0.037303
3148	6	34	14	-0.604273
3149	6	34	15	0.796422
3150	6	34	16	-0.509126
3151	6	34	17	0.962844
3152	6	34	18	0.188661
3153	6	34	19	-0.009788
3154	6	34	20	-0.853531
3155	6	34	21	0.748116
3156	6	34	22	-1.421647
3157	6	34	23	0.532105
3158	6	34	24	-75.653931
3159	6	34	25	72.348572
3160	5	5	31	-.32
3161	5	7	34	-.30
3162	4	7	34	-.30
3163	4	7	37	-.32
3164	5	7	37	-.32
3165	5	8	34	-.13
3166	4	8	34	-.13
3167	5	8	33	-.34
3168	4	8	33	-.33
3169	2	9	34	-.08
3170	5	10	37	-1.18
3171	4	10	37	-1.18
3172	5	11	36	-0.92
3173	4	11	36	-0.92
3174	5	6	32	-.16
3175	5	6	31	-.00
3176	5	8	31	-.25

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 4 - 1969 TO 1971 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3177		5	8	.32 -.51
3178		2	10	.31 -.00
3179		1	10	.30 -.01
3180		2	10	.30 -.01
3181		1	11	.28 -.61
3182		2	11	.28 -.61
3183		2	11	.29 -.08
3184		2	11	.32 -.16
3185		3	11	.32 -.16
3186		4	11	.32 -.16
3187		5	11	.32 -.16
3188		2	8	.15 -.06
3189		3	8	.15 -.06
3190		4	8	.15 -.06
3191		2	10	.18 -.05
3192		3	10	.18 -.05
3193		4	10	.18 -.05
3194		5	10	.18 -.05
3195		1	11	.17 -.14
3196		2	11	.17 -.14
3197		2	11	.19 -.07
3198		3	11	.19 -.07
3199		4	11	.19 -.07
3200		5	11	.19 -.07
3201		5	11	.20 -.69
3202		5	14	.33 -.06
3203		4	14	.33 -.05
3204		5	15	.33 -.03
3205		4	15	.33 -.02
3206		4	16	.33 -.14
3207		5	16	.33 -.14
3208		4	17	.33 -.08
3209		5	17	.33 -.08
3210		2	13	.29 -.36
3211		5	14	.32 -.00
3212		2	14	.27 0.00
3213		2	15	.27 0.00
3214		2	12	.18 -.32
3215		2	13	.18 -.25
3216		2	13	.19 -.37
3217		2	13	.20 -.31
3218		3	13	.20 -.31
3219		4	13	.20 -.31
3220		5	13	.20 -.31
3221		2	15	.20 -.35

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 4 - 1969 TO 1971 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3222	3	15	20	-.35
3223	4	15	20	-.35
3224	2	13	14	-.18
3225	2	15	11	-.21
3226	3	15	11	-.21
3227	4	15	11	-.21
3228	5	15	11	-.21
3229	2	15	12	-.04
3230	3	15	12	-.04
3231	4	15	12	-.04
3232	5	15	12	-.04
3233	2	16	13	-.54
3234	2	18	21	-.22
3235	3	18	21	-.22
3236	4	18	21	-.22
3237	5	18	21	-.22
3238	2	20	22	-.38
3239	2	22	23	-.16
3240	3	22	23	-.16
3241	4	22	23	-.16
3242	5	22	23	-.16
3243	2	18	20	-.93
3244	5	19	15	-.03
3245	5	23	19	-.09
3246	2	19	13	-.13
3247	2	24	21	-.66
3248	4	21	16	-0.24

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 5 - 1972 TO 1976
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER								
3249		5	4	218	1825	5	1	8760
3250		6	3	6	-0.666624			
3251		6	3	7	0.431342			
3252		6	3	8	-1.889034			
3253		6	3	9	2.014529			
3254		6	3	10-23.	181732			
3255		6	3	11	23.339508			
3256		6	3	12	1.310150			
3257		6	3	13	0.131392			
3258		6	3	14	0.063765			
3259		6	3	15	-0.089072			
3260		6	3	16	-2.434632			
3261		6	3	17	2.247620			
3262		6	3	18	-0.498793			
3263		6	3	19	-8.697537			
3264		6	3	20	5.122633			
3265		6	3	21	-3.225579			
3266		6	3	22	-0.707285			
3267		6	3	23	3.963917			
3268		6	3	24	3.712992			
3269		6	3	25	-7.579944			
3270		6	3	26	4.339444			
3271		6	3	27	1.129159			
3272		6	3	28	3.030056			
3273		6	3	29	0.915236			
3274		6	3	30	-1.177725			
3275		6	3	31	1.298210			
3276		6	3	32	1.516096			
3277		6	3	33	4.933349			
3278		6	4	5	-1.254580			
3279		6	4	34	7.281391			
3280		6	5	4	-0.715418			
3281		6	5	35	6.288570			
3282		6	6	4	-0.441624			
3283		6	7	4	-0.275582			
3284		6	7	38	0.409654			
3285		6	8	4	-0.261785			
3286		6	8	38	0.634842			
3287		6	9	4	-0.249766			
3288		6	9	38	0.128416			
3289		6	10	4	-0.238975			
3290		6	10	38	-0.009652			
3291		6	11	4	-0.228890			
3292		6	11	35	-2.090115			
3293		6	11	37	0.784172			

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 5 - 1972 TO 1976 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3294	6	12	4	-0.217827
3295	6	12	34	-2.617661
3296	6	12	36	2.066625
3297	6	13	4	-0.204423
3298	6	13	34	8.004854
3299	6	14	4	-0.188382
3300	6	14	35	1.130127
3301	6	15	4	-0.164492
3302	6	15	35	0.338640
3303	6	16	4	-0.128731
3304	6	16	34	1.649562
3305	6	17	4	-0.064509
3306	6	17	34	3.903675
3307	6	18	3	-0.968147
3308	6	18	4	0.555195
3309	6	18	32	-3.885242
3310	6	18	33	3.371967
3311	6	19	2	-0.210925
3312	6	19	31	-0.125957
3313	6	20	2	-0.220628
3314	6	20	31	0.229478
3315	6	21	2	-0.228362
3316	6	21	31	0.287879
3317	6	22	2	-0.235242
3318	6	22	31	-0.014151
3319	6	23	2	-0.241834
3320	6	23	31	0.401435
3321	6	24	2	-0.249324
3322	6	24	31	0.835119
3323	6	25	2	-0.258525
3324	6	25	27	-0.460438
3325	6	25	28	-0.901733
3326	6	25	29	-0.994839
3327	6	25	30	1.452032
3328	6	26	2	-0.271115
3329	6	26	26	1.096174
3330	6	27	2	-0.292495
3331	6	27	26	0.895636
3332	6	28	2	-0.511611
3333	6	28	26	0.857211
3334	6	29	2	-0.290308
3335	6	29	26	0.784786
3336	6	30	2	-0.226000
3337	6	30	26	1.029646
3338	6	31	2	-0.331035

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 5 - 1972 TO 1976 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3339	6	31	26	1.484611
3340	6	32	2	-0.577279
3341	6	32	5	1.570942
3342	6	32	26	1.994522
3343	6	33	2	-0.833880
3344	6	33	4	3.501467
3345	6	33	6	1.380342
3346	6	33	26	35.623978
3347	6	34	3	1.607290
3348	6	34	7	0.139619
3349	6	34	8	0.199850
3350	6	34	9	0.213737
3351	6	34	10	0.200880
3352	6	34	11	0.168628
3353	6	34	12	0.118006
3354	6	34	13	0.037303
3355	6	34	14	-0.604273
3356	6	34	15	0.796422
3357	6	34	16	-0.509126
3358	6	34	17	0.962844
3359	6	34	18	0.188661
3360	6	34	19	-0.009788
3361	6	34	20	-0.853531
3362	6	34	21	0.748116
3363	6	34	22	-1.421647
3364	6	34	23	0.532105
3365	6	34	24	-75.653931
3366	6	34	25	72.348572
3367	2	5	34	-.03
3368	3	5	34	-.03
3369	4	5	34	-.03
3370	5	5	34	-.03
3371	5	5	31	-.26
3372	5	7	34	-.33
3373	4	7	34	-.32
3374	4	7	37	-.59
3375	5	7	37	-.59
3376	5	8	34	-.30
3377	4	8	34	-.29
3378	5	8	33	-.46
3379	4	8	33	-.46
3380	2	9	33	-.24
3381	2	9	34	-.41
3382	5	10	37	-1.35
3383	4	10	37	-1.34

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 5 - 1972 TO 1976 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3384	5	11	36	-0.75
3385	4	11	36	-0.74
3386	5	6	32	-.30
3387	5	6	31	-.27
3388	5	8	31	-.15
3389	5	8	32	-.36
3390	2	10	31	-1.11
3391	1	10	30	-.79
3392	2	10	30	-.79
3393	1	11	28	-1.01
3394	2	11	28	-1.01
3395	2	11	29	-1.06
3396	2	11	32	-.36
3397	3	11	32	-.36
3398	4	11	32	-.36
3399	5	11	32	-.36
3400	2	8	15	-.06
3401	3	8	15	-.06
3402	4	8	15	-.06
3403	2	10	18	-.04
3404	3	10	18	-.04
3405	4	10	18	-.04
3406	5	10	18	-.04
3407	5	10	17	-.27
3408	1	11	17	-.22
3409	2	11	17	-.22
3410	2	11	19	-.07
3411	3	11	19	-.07
3412	4	11	19	-.07
3413	5	11	19	-.07
3414	5	11	20	-.69
3415	5	14	33	-.32
3416	4	14	33	-0.31
3417	5	15	33	-.30
3418	4	15	33	-.30
3419	4	16	33	-1.72
3420	5	16	33	-1.72
3421	4	17	33	-.36
3422	5	17	33	-.36
3423	2	13	29	-1.08
3424	5	14	32	-.44
3425	1	14	27	-.50
3426	2	14	27	-.50
3427	2	15	27	-1.13
3428	1	16	24	-.28

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 5 - 1972 TO 1976 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3429	2	16	24	-.28
3430	2	12	18	-.29
3431	2	13	18	-.84
3432	2	13	19	-.33
3433	2	13	20	-.20
3434	3	13	20	-.20
3435	4	13	20	-.20
3436	5	13	20	-.20
3437	2	15	20	-.22
3438	3	15	20	-.22
3439	4	15	20	-.22
3440	2	13	14	-.17
3441	2	15	11	-.12
3442	3	15	11	-.12
3443	4	15	11	-.12
3444	5	15	11	-.12
3445	2	15	12	-.08
3446	3	15	12	-.08
3447	4	15	12	-.08
3448	5	15	12	-.08
3449	2	16	13	-.66
3450	2	18	21	-.15
3451	3	18	21	-.15
3452	4	18	21	-.15
3453	5	18	21	-.15
3454	2	20	22	-.42
3455	5	22	25	-.24
3456	2	22	23	-.19
3457	3	22	23	-.19
3458	4	22	23	-.19
3459	5	22	23	-.19
3460	2	22	22	-.82
3461	2	18	20	-.82
3462	5	19	15	-.02
3463	2	19	20	-.58
3464	5	23	19	-.06
3465	2	19	13	-.28
3466	2	24	21	-.92
3467	4	21	16	-0.24

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 6 - 1977 TO 1979
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER							
3468	6	5	221	1095	3	1	8760
3469	6	3	6	-0.666624			
3470	6	3	7	0.431342			
3471	6	3	8	-1.889034			
3472	6	3	9	2.014529			
3473	6	3	10-23	181732			
3474	6	3	11	23.339508			
3475	6	3	12	1.310150			
3476	6	3	13	0.131392			
3477	6	3	14	0.063765			
3478	6	3	15	-0.089072			
3479	6	3	16	-2.434632			
3480	6	3	17	2.247620			
3481	6	3	18	-0.498793			
3482	6	3	19	-8.697537			
3483	6	3	20	5.122633			
3484	6	3	21	-3.225579			
3485	6	3	22	-0.707285			
3486	6	3	23	3.963917			
3487	6	3	24	3.712992			
3488	6	3	25	-7.579944			
3489	6	3	26	4.339444			
3490	6	3	27	1.129159			
3491	6	3	28	3.030056			
3492	6	3	29	0.915236			
3493	6	3	30	-1.177725			
3494	6	3	31	1.298210			
3495	6	3	32	1.516096			
3496	6	3	33	4.933349			
3497	6	4	5	-1.254580			
3498	6	4	34	7.281391			
3499	6	5	4	-0.715418			
3500	6	5	35	6.288570			
3501	6	6	4	-0.441624			
3502	6	7	4	-0.275582			
3503	6	7	38	0.409654			
3504	6	8	4	-0.261785			
3505	6	8	38	0.634842			
3506	6	9	4	-0.249766			
3507	6	9	38	0.128416			
3508	6	10	4	-0.238975			
3509	6	10	38	-0.009652			
3510	6	11	4	-0.228890			
3511	6	11	35	-2.090115			
3512	6	11	37	0.784172			

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 6 - 1977 TO 1979 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3513	6	12	4	-0.217827
3514	6	12	34	-2.617661
3515	6	12	36	2.066625
3516	6	13	4	-0.204423
3517	6	13	34	8.004854
3518	6	14	4	-0.188382
3519	6	14	35	1.130127
3520	6	15	4	-0.164492
3521	6	15	35	0.338640
3522	6	16	4	-0.128731
3523	6	16	34	1.649562
3524	6	17	4	-0.064509
3525	6	17	34	3.903675
3526	6	18	3	-0.968147
3527	6	18	4	0.555195
3528	6	18	32	-3.885242
3529	6	18	33	3.371967
3530	6	19	2	-0.210925
3531	6	19	31	-0.125957
3532	6	20	2	-0.220628
3533	6	20	31	0.229478
3534	6	21	2	-0.228362
3535	6	21	31	0.287879
3536	6	22	2	-0.235242
3537	6	22	31	-0.014151
3538	6	23	2	-0.241834
3539	6	23	31	0.401435
3540	6	24	2	-0.249324
3541	6	24	31	0.835119
3542	6	25	2	-0.258525
3543	6	25	27	-0.460438
3544	6	25	28	-0.901733
3545	6	25	29	-0.994839
3546	6	25	30	1.452032
3547	6	26	2	-0.271115
3548	6	26	26	1.096174
3549	6	27	2	-0.292495
3550	6	27	26	0.895636
3551	6	28	2	-0.511611
3552	6	28	26	0.857211
3553	6	29	2	-0.290308
3554	6	29	26	0.784786
3555	6	30	2	-0.226000
3556	6	30	26	1.029646
3557	6	31	2	-0.331035

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 6 - 1977 TO 1979 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3558	6	31	26	1.484611
3559	6	32	2	-0.577279
3560	6	32	5	1.570942
3561	6	32	26	1.994522
3562	6	33	2	-0.833880
3563	6	33	4	3.501467
3564	6	33	6	1.380342
3565	6	33	26	35.623978
3566	6	34	3	1.607290
3567	6	34	7	0.139619
3568	6	34	8	0.199850
3569	6	34	9	0.213737
3570	6	34	10	0.200880
3571	6	34	11	0.168628
3572	6	34	12	0.118006
3573	6	34	13	0.037303
3574	6	34	14	-0.604273
3575	6	34	15	0.796422
3576	6	34	16	-0.509126
3577	6	34	17	0.962844
3578	6	34	18	0.188661
3579	6	34	19	-0.009788
3580	6	34	20	-0.853531
3581	6	34	21	0.748116
3582	6	34	22	-1.421647
3583	6	34	23	0.532105
3584	6	34	24	-75.653931
3585	6	34	25	72.348572
3586	2	5	34	-.39
3587	3	5	34	-.39
3588	4	5	34	-.39
3589	5	5	34	-.39
3590	5	5	31	-.71
3591	5	7	34	-.37
3592	4	7	34	-.38
3593	4	7	37	-.95
3594	5	7	37	-.95
3595	5	8	34	-0.53
3596	4	8	34	-.53
3597	5	8	33	-0.60
3598	4	8	33	-.60
3599	2	9	33	-3.95
3600	2	9	34	-.92
3601	5	10	37	-0.95
3602	4	10	37	-.94

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 6 - 1977 TO 1979 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3603	5	11	36	-0.57
3604	4	11	36	-.57
3605	5	6	32	-1.09
3606	5	6	31	-1.01
3607	5	8	31	-.05
3608	5	8	32	-2.3
3609	2	10	31	-1.47
3610	1	10	31	-1.47
3611	1	10	30	-1.98
3612	2	10	30	-1.98
3613	1	11	28	-1.34
3614	2	11	28	-1.34
3615	2	11	29	-.80
3616	1	11	29	-.80
3617	2	11	32	-.46
3618	3	11	32	-.46
3619	4	11	32	-.46
3620	5	11	32	-.46
3621	2	8	15	-.06
3622	3	8	15	-.06
3623	4	8	15	-.06
3624	2	10	18	-.02
3625	3	10	18	-.02
3626	4	10	18	-.02
3627	5	10	18	-.02
3628	5	10	17	-.23
3629	1	11	17	-.14
3630	2	11	17	-.14
3631	2	11	19	-.05
3632	3	11	19	-.05
3633	4	11	19	-.05
3634	5	11	19	-.05
3635	5	11	20	-.69
3636	5	14	33	-.31
3637	4	14	33	-.30
3638	5	15	33	-.24
3639	4	15	33	-.24
3640	4	16	33	-1.81
3641	5	16	33	-1.81
3642	4	17	33	-.29
3643	5	17	33	-.29
3644	1	13	29	-.96
3645	2	13	29	-.96
3646	5	14	32	-.80
3647	1	14	27	-1.22

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 6 - 1977 TO 1979 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3648	2	14	27	-1.22
3649	2	15	27	-1.47
3650	1	16	24	-2.16
3651	2	16	24	-2.16
3652	2	12	18	-.22
3653	2	13	18	-1.37
3654	2	13	19	-.38
3655	2	13	20	-.18
3656	3	13	20	-.18
3657	4	13	20	-.18
3658	5	13	20	-.18
3659	2	15	20	-.24
3660	3	15	20	-.24
3661	4	15	20	-.24
3662	2	13	14	-.09
3663	2	15	11	-.16
3664	3	15	11	-.16
3665	4	15	11	-.16
3666	5	15	11	-.16
3667	2	15	12	-.08
3668	3	15	12	-.08
3669	4	15	12	-.08
3670	5	15	12	-.08
3671	2	16	13	-.50
3672	2	18	21	-.04
3673	3	18	21	-.04
3674	4	18	21	-.04
3675	5	18	21	-.04
3676	2	20	22	-.52
3677	5	22	25	-.12
3678	2	22	23	-.22
3679	3	22	23	-.22
3680	4	22	23	-.22
3681	5	22	23	-.22
3682	2	22	22	-1.48
3683	2	18	20	-.49
3684	5	19	15	-.01
3685	2	19	20	-.14
3686	5	23	19	-.03
3687	2	19	13	-.05
3688	2	24	21	-.68
3689	4	21	16	-0.24

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 7 - 1980 TO 1981
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER								
36 90		7	6	223	730	2	1	8760
36 91		6	3	6	-0.666624			
36 92		6	3	7	0.431342			
36 93		6	3	8	-1.889034			
36 94		6	3	9	2.014529			
36 95		6	3	10-23.181732				
36 96		6	3	11	23.339508			
36 97		6	3	12	1.310150			
36 98		6	3	13	0.131392			
36 99		6	3	14	0.063765			
3700		6	3	15	-0.089072			
3701		6	3	16	-2.434632			
3702		6	3	17	2.247620			
3703		6	3	18	-0.498793			
3704		6	3	19	-8.697537			
3705		6	3	20	5.122633			
3706		6	3	21	-3.225579			
3707		6	3	22	-0.707285			
3708		6	3	23	3.963917			
3709		6	3	24	3.712992			
3710		6	3	25	-7.579944			
3711		6	3	26	4.339444			
3712		6	3	27	1.129159			
3713		6	3	28	3.030056			
3714		6	3	29	0.915236			
3715		6	3	30	-1.177725			
3716		6	3	31	1.298210			
3717		6	3	32	1.516096			
3718		6	3	33	4.933349			
3719		6	4	5	-1.254580			
3720		6	4	34	7.281391			
3721		6	5	4	-0.715418			
3722		6	5	35	6.288570			
3723		6	6	4	-0.441624			
3724		6	7	4	-0.275582			
3725		6	7	38	0.409654			
3726		6	8	4	-0.261785			
3727		6	8	38	0.634842			
3728		6	9	4	-0.249766			
3729		6	9	38	0.128416			
3730		6	10	4	-0.238975			
3731		6	10	38	-0.009652			
3732		6	11	4	-0.228890			
3733		6	11	35	-2.090115			
3734		6	11	37	0.784172			

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 7 - 1980 TO 1981 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER			
3735	6	12	4 -0.217827
3736	6	12	34 -2.617661
3737	6	12	36 2.066625
3738	6	13	4 -0.204423
3739	6	13	34 8.004854
3740	6	14	4 -0.188382
3741	6	14	35 1.130127
3742	6	15	4 -0.164492
3743	6	15	35 0.338640
3744	6	16	4 -0.128731
3745	6	16	34 1.649562
3746	6	17	4 -0.064509
3747	6	17	34 3.903675
3748	6	18	3 -0.968147
3749	6	18	4 0.555195
3750	6	18	32 -3.885242
3751	6	18	33 3.371967
3752	6	19	2 -0.210925
3753	6	19	31 -0.125957
3754	6	20	2 -0.220628
3755	6	20	31 0.229478
3756	6	21	2 -0.228362
3757	6	21	31 0.287879
3758	6	22	2 -0.235242
3759	6	22	31 -0.014151
3760	6	23	2 -0.241834
3761	6	23	31 0.401435
3762	6	24	2 -0.249324
3763	6	24	31 0.835119
3764	6	25	2 -0.258525
3765	6	25	27 -0.460438
3766	6	25	28 -0.901733
3767	6	25	29 -0.994839
3768	6	25	30 1.452032
3769	6	26	2 -0.271115
3770	6	26	26 1.096174
3771	6	27	2 -0.292495
3772	6	27	26 0.895636
3773	6	28	2 -0.511611
3774	6	28	26 0.857211
3775	6	29	2 -0.290308
3776	6	29	26 0.784786
3777	6	30	2 -0.226000
3778	6	30	26 1.029646
3779	6	31	2 -0.331035

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 7 - 1980 TO 1981 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3780		6	31	26 1.484611
3781		6	32	2 -0.577279
3782		6	32	5 1.570942
3783		6	32	26 1.994522
3784		6	33	2 -0.833880
3785		6	33	4 3.501467
3786		6	33	6 1.380342
3787		6	33	26 35.623978
3788		6	34	3 1.607290
3789		6	34	7 0.139619
3790		6	34	8 0.199850
3791		6	34	9 0.213737
3792		6	34	10 0.200880
3793		6	34	11 0.168628
3794		6	34	12 0.118006
3795		6	34	13 0.037303
3796		6	34	14 -0.604273
3797		6	34	15 0.796422
3798		6	34	16 -0.509126
3799		6	34	17 0.962844
3800		6	34	18 0.188661
3801		6	34	19 -0.009788
3802		6	34	20 -0.853531
3803		6	34	21 0.748116
3804		6	34	22 -1.421647
3805		6	34	23 0.532105
3806		6	34	24-75.653931
3807		6	34	25 72.348572
3808		2	5	34 -.41
3809		3	5	34 -.41
3810		4	5	34 -.41
3811		5	5	34 -.41
3812		5	5	31 -.00
3813		5	7	34 -.34
3814		4	7	34 -.33
3815		4	7	37 -.14
3816		5	7	37 -.14
3817		5	8	34 -0.00
3818		5	8	33 -.36
3819		4	8	33 -.36
3820		2	9	33 -.43
3821		2	9	34 -.00
3822		5	10	37 -.89
3823		4	10	37 -.89
3824		5	11	36 -.47

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 7 - 1980 TO 1981 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3825	4	11	36	-.46
3826	5	6	32	-0.00
3827	5	6	31	-0.00
3828	5	8	31	-.06
3829	5	8	32	-0.00
3830	2	10	31	-0.00
3831	1	10	31	-0.00
3832	1	10	30	-0.00
3833	2	10	30	-0.00
3834	1	11	28	-0.83
3835	2	11	28	-0.83
3836	2	11	29	-.00
3837	1	11	29	-.00
3838	2	11	32	-.00
3839	3	11	32	-.00
3840	4	11	32	-.00
3841	5	11	32	-.00
3842	1	9	21	-.19
3843	2	9	21	-.19
3844	2	8	15	-.02
3845	3	8	15	-.02
3846	4	8	15	-.02
3847	2	10	18	-.01
3848	3	10	18	-.01
3849	4	10	18	-.01
3850	5	10	18	-.01
3851	5	10	17	-.10
3852	1	11	17	-.06
3853	2	11	17	-.06
3854	2	11	19	-.00
3855	3	11	19	-.00
3856	4	11	19	-.00
3857	5	11	19	-.00
3858	5	11	20	-.69
3859	5	14	33	-.22
3860	4	14	33	-.21
3861	5	15	33	-.11
3862	4	15	33	-.10
3863	4	16	33	-0.61
3864	5	16	33	-0.61
3865	4	17	33	-.22
3866	5	17	33	-.22
3867	2	13	29	-.00
3868	1	13	29	-.00
3869	5	14	32	-.00

TABLE 3.--CONTINUED

GROUP IV. PARAMETERS THAT CHANGE WITH THE PUMPING PERIOD (CONT)
 PUMPING PERIOD NUMBER 7 - 1980 TO 1981 (CONT)
 DISCHARGE (-) AND RECHARGE (+) IN FT³/S;
 PUMPING PERIOD IN DAYS; INITIAL TIME STEP IN HOURS

CARD NUMBER				
3870	2	14	27	-0.00
3871	1	14	27	-0.00
3872	2	15	27	-0.00
3873	1	16	24	-0.71
3874	2	16	24	-0.71
3875	2	12	18	-.04
3876	2	13	18	-0.34
3877	2	13	19	-.00
3878	2	13	20	-.05
3879	3	13	20	-.05
3880	4	13	20	-.05
3881	5	13	20	-.05
3882	2	15	20	-.18
3883	3	15	20	-.18
3884	4	15	20	-.18
3885	2	13	14	-.00
3886	1	14	12	-.08
3887	2	15	11	-.00
3888	3	15	11	-.00
3889	4	15	11	-.00
3890	5	15	11	-.00
3891	2	15	12	-.06
3892	3	15	12	-.06
3893	4	15	12	-.06
3894	5	15	12	-.06
3895	2	16	13	-.00
3896	2	18	21	-.02
3897	3	18	21	-.02
3898	4	18	21	-.02
3899	5	18	21	-.02
3900	2	20	22	-.64
3901	5	22	25	-.00
3902	2	22	23	-.10
3903	3	22	23	-.10
3904	4	22	23	-.10
3905	5	22	23	-.10
3906	2	22	22	-1.43
3907	2	18	20	-.55
3908	5	19	15	-.01
3909	2	19	20	-.15
3910	5	23	19	-.00
3911	2	19	13	-.00
3912	2	24	21	-.56
3913	4	21	16	-0.24